



LATITUDE: 39° 13' 40"      LONGITUDE: 83° 16' 11"



PORTION TO BE IMPROVED	_____
INTERSTATE HIGHWAY	_____
STATE ROUTES	_____
COUNTY ROADS	_____
LOCAL ROADS	_____
WATERWAYS	_____



PLAN PREPARED BY:



AMERICAN  
STRUCTUREPOINT  
INC.

2550 CORPORATE EXCHANGE DR, STE 300  
COLUMBUS, OH 43231  
TEL 614.901.2235 FAX 614.901.2236  
www.structurepoint.com



SIGNED: \_\_\_\_\_  
DATE: 07/14/2025

# CONSTRUCTION DOCUMENTS FOR VILLAGE OF BAINBRIDGE STREETSCAPE IMPROVEMENTS ROSS COUNTY, OHIO

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ENGINEERS SEAL:	CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS			ODOT STANDARD CONSTRUCTION DRAWINGS
	2202			CB-3A
				CB-2-3
				MT-96.11
				DM-1.2
				DM-4.4
SIGNED:				
DATE:	07/14/2025			

## PROJECT DESCRIPTION

THIS PROJECT CONTAINS THE IMPROVEMENT OF STREETSCAPE ALONG MAIN STREET WHICH INCLUDES THE ADDITION OF ON-STREET PARKING, PEDESTRIAN WALKS, MEMORIAL PARK, AND ASSOCIATED UTILITIES.

## 2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

## COOPERATION BETWEEN CONTRACTORS

THE CONTRACTOR IS ADVISED THAT ADJACENT CONSTRUCTION OPERATIONS INCLUDING, BUT NOT LIMITED TO ANY ODOT CONSTRUCTION ALONG U.S. ROUTE 50, MAY IMPACT THE PROJECT SCHEDULE, SEQUENCE OF CONSTRUCTION, AND/OR TRAFFIC CONTROL BETWEEN ADJACENT CONSTRUCTION ZONES. THE CONTRACTOR IS REQUIRED TO COORDINATE ALL MAINTENANCE OF TRAFFIC OPERATIONS WITH THOSE ADJACENT CONSTRUCTION PROJECTS.

COOPERATION WITH THE ENGINEER, INSPECTORS AND ALL OTHER CONTRACTORS ON OR ADJACENT TO THE PROJECT IS REQUIRED, AS PER CMS 105.08.

BAINBRIDGE STREETSCAPE ROADWAY WORK IS SCHEDULED TO BE COMPLETED BY 6/1/2026.

REVISIONS	DATE	SHEET NO.	DESCRIPTION

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

ENGINEER

DATE

HORIZONTAL  
SCALE IN FEET

TITLE SHEET

DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

PAT

REVIEWER

JRP 06/06/25

PROJECT ID

SUBSET TOTAL

SHEET P.1 TOTAL 70







ITEM 614. MAINTAINING TRAFFIC

A MINIMUM OF 1 LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES BY THE USE OF THE EXISTING PAVEMENT. ACCESS TO ALL PARCELS ADJACENT TO THE WORK ZONE SHALL BE MAINTAINED AT ALL TIMES. PARCELS WITH MULTIPLE ACCESS POINTS WILL BE REDUCED, AS NEEDED, PENDING COORDINATION WITH THE PROPERTY OWNERS.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR SPECIAL EVENTS:

NEW YEAR'S (OBSERVED)

(OTHER HOLIDAY OR SPECIAL EVENT)

MEMORIAL DAY

FOURTH OF JULY (OBSERVED)

LABOR DAY

THANKSGIVING

CHRISTMAS (OBSERVED)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	5:00 PM FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	5:00 PM FRIDAY THROUGH 6:00 AM TUESDAY
TUESDAY	5:00 PM MONDAY THROUGH 6:00 AM WEDNESDAY
WEDNESDAY	5:00 PM TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	5:00PM WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	5:00 PM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	5:00 PM THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	5:00 PM FRIDAY THROUGH 6:00 AM MONDAY

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF \$125 FOR EACH MINUTE THE ABOVE DESCRIBED LANE CLOSURE RESTRICTIONS ARE VIOLATED.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

ACCESS MUST BE MAINTAINED FOR EMERGENCY VEHICLES AT ALL TIMES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

OVERNIGHT TRENCH CLOSING

NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 - WATER79 M. GAL

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@ODOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME FRAME TABLE

ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO PERMITS & PIO
LANE CLOSURES & RESTRICTIONS	≥ 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

ITEM 614. LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).
- FOR OPERATIONS WITHOUT POSITIVE PROTECTION OCCURRING WITHIN 10 FEET OF AN OPEN TRAVELED LANE THAT MEET ALL OF THE FOLLOWING CRITERIA:
  - ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND
  - AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,
  - AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)

\*WITHOUT POSITIVE PROTECTION\* MEANS USE OF DRUMS, CONES, SHADOW VEHICLE, ETC, WITHOUT PROTECTION FROM PORTABLE BARRIER OR OTHER RIGID BARRIER ALONG THE WORK AREA. THIS PHRASE DOES NOT APPLY TO CASES WHERE POSITIVE PROTECTION IS REQUIRED. MOBILE OPERATIONS ARE REGARDED AS \*WITHOUT POSITIVE PROTECTION\* FOR WORK ZONES USING A COMBINATION OF BARRIER AND TEMPORARY TRAFFIC CONTROL DEVICES (CONES, DRUMS, ETC), THE DESIGNATION SHALL BE BASED UPON THE TYPE OF DEVICES USED IN THE AREA THAT WORKERS ARE LOCATED.

IF MULTIPLE ACTIVE LOCALIZED QUALIFYING WORK AREAS OCCUR WITHOUT POSITIVE PROTECTION, PER MAINLINE TRAFFIC DIRECTION, PROVIDE A UNIFORMED LEO AND OFFICIAL PATROL CAR IN ADVANCE OF:

- THE FIRST ACTIVE WORK AREA THAT DRIVERS WILL ENCOUNTER; OR
- THE ACTIVE WORK AREA Laterally CLOSEST TO THE OPEN TRAVELED LANE; OR
- OTHER LOCATION AS APPROVED BY THE ENGINEER.

THE UNIFORMED LEO AND OFFICIAL PATROL CAR MAY RELOCATE AMONG THE LISTED LOCATIONS AS APPROPRIATE AS THE OPERATIONS PROCEED IN THE LOCALIZED QUALIFYING WORK AREAS.

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE16 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

SEQUENCE OF CONSTRUCTION PHASE 1

PRIOR TO CONSTRUCTION, INSTALL ALL BARRELS AND TEMPORARY SIGNS INCLUDING ADVANCED WARNING SIGNS PER MAINTENANCE OF TRAFFIC PLAN AND APPLICABLE ODOT STANDARD DRAWINGS (SCD).

- PROVIDE TEMPORARY STRIPING OF SOLID WHITE LANE LINE TO ENSURE TWO LANE TWO-WAY TRAFFIC IS MAINTAINED.

SEQUENCE OF CONSTRUCTION PHASE 2

PRIOR TO CONSTRUCTION, INSTALL ALL BARRELS AND TEMPORARY SIGNS INCLUDING ADVANCED WARNING SIGNS PER MAINTENANCE OF TRAFFIC PLAN AND APPLICABLE ODOT STANDARD DRAWINGS (SCD).

MAINTAIN ONE LANE, TWO-WAY TRAFFIC ON THE EASTBOUND LANE FROM MOUNTAIN STREET TO S QUARRY STREET PER ODOT SCD MT-96.11. MAINTAIN NORTHBOUND AND SOUTHBOUND TRAFFIC FOR BOTH MOUNTAIN STREET AND S QUARRY STREET UTILIZING THE TEMPORARY TRAFFIC SIGNALS IN BOTH DIRECTIONS.

PROVIDE SHORT-TERM ONE LANE ROAD CLOSURES FOR RESURFACING WORK TAKING PLACE AT THE INTERSECTION OF MOUNTAIN STREET AND W MAIN STREET INTERSECTION. TRAFFIC SHALL NOT BE OBSTRUCTED IN ANY DIRECTION FOR MORE THAN A 15 MINUTE INTERVAL FOR THIS WORK.

ANY OPEN TRENCH AREAS SHALL HAVE DROP-OFF PROTECTION PER ODOT SCD MT-101.90.

SEQUENCE OF CONSTRUCTION PHASE 3

PRIOR TO CONSTRUCTION, INSTALL ALL BARRELS AND TEMPORARY SIGNS INCLUDING ADVANCED WARNING SIGNS PER MAINTENANCE OF TRAFFIC PLAN AND APPLICABLE ODOT STANDARD DRAWINGS (SCD).

MAINTAIN ONE LANE, TWO-WAY TRAFFIC ON THE EASTBOUND LANE FROM S QUARRY STREET TO N MAPLE STREET PER ODOT SCD MT-96.11. MAINTAIN NORTHBOUND AND SOUTHBOUND TRAFFIC FOR BOTH S QUARRY STREET AND N MAPLE STREET UTILIZING THE TEMPORARY TRAFFIC SIGNALS IN BOTH DIRECTIONS.

PROVIDE SHORT-TERM ONE LANE ROAD CLOSURES FOR RESURFACING WORK TAKING PLACE AT THE INTERSECTION OF S QUARRY STREET AND W MAIN STREET INTERSECTION. TRAFFIC SHALL NOT BE OBSTRUCTED IN ANY DIRECTION FOR MORE THAN A 15 MINUTE INTERVAL FOR THIS WORK.

PROVIDE SHORT-TERM ONE LANE ROAD CLOSURES FOR RESURFACING WORK TAKING PLACE AT THE INTERSECTION OF N MAPLE STREET AND W MAIN STREET INTERSECTION. TRAFFIC SHALL NOT BE OBSTRUCTED IN ANY DIRECTION FOR MORE THAN A 15 MINUTE INTERVAL FOR THIS WORK.

ANY OPEN TRENCH AREAS SHALL HAVE DROP-OFF PROTECTION PER ODOT SCD MT-101.90.

NOTES FOR CONSTRUCTION EQUIPMENT

- CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.
- ALL CONSTRUCTION VEHICLES SHOULD BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.
- PERIODICALLY CHECK EQUIPMENT AND MACHINERY FOR PROPER TUNING TO MINIMIZED EXHAUST EMISSION AND NOISE.

HORIZONTAL  
SCALE IN FEET

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

DESIGNER

REVIEWER

PROJECT ID

SUBSET

SHEET

TOTAL

TOTAL

AMERICAN  
STRUCTUREPOINT  
INC.

PAT

JRP 06/06/25

P.3

70



SHEET NUMBER																	ITEM	ITEM	GRAND	UNIT	DESCRIPTION
7	8	9	10	11	12	32	33	36	37	38	39	40	66	67	68	69		EXT	TOTAL		
																					ROADWAY
1																	201	11000	LS		CLEARING AND GRUBBING
1,283	2,389																202	23000	3,672	SY	PAVEMENT REMOVED
7,102	8,287																202	30000	15,389	SF	WALK REMOVED
5	6																202	98100	11	EACH	REMOVAL MISC.:Utility Pole
	4																638	10500	4	EACH	FIRE HYDRANT REMOVED AND RESET
1																	SPECIAL	20399000	LS		EARTHWORK
																					EROSION CONTROL
																	659	00500		SY	SEEDING AND MULCHING, CLASS 1
						9	16										832	30000	25	EACH	EROSION CONTROLINLET/ CATCH BASIN PROTECTION
							1										832	30000	1	EACH	EROSION CONTROLCONSTRUCTION ENTRANCE
																					DRAINAGE
		530	718														611	04200	1,248	FT	12" CONDUIT, TYPE A
		1	155														611	07200	156	FT	18" CONDUIT, TYPE A
			4														611	98510	4	EACH	CATCH BASIN, NO. 2-3
		7	9														611	98180	16	EACH	CATCH BASIN, NO. 3A
			4														611	99900	4	EACH	DRAINAGE STRUCTURE, MISC.:YARD DRAIN
																					PAVEMENT
					72	122											407	20000	194	GAL	NON-TRACKING TACK COAT
					40	68											823	40000	108	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449)
					40	68											441	70300	108	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)
					186	246											304	20000	432	CY	AGGREGATE BASE
					159	271											301	56000	430	CY	ASPHALT CONCRETE BASE, PG64-22, (449)
					1,085	1,306											609	26000	2,391	FT	CURB, TYPE 6
					2,433	3,254											204	10000	5,687	SY	SUBGRADE COMPACTION
					12	14											608	52000	26	SF	CURB RAMP
					9,804	11,918											608	10000	21,722	SF	4" CONCRETE WALK
																	630	97700		EACH	TRAFFIC CONTROL
																	SPECIAL	64099000	LS		SIGNING, MISC.:RELOCATION
									8	8							614	11110	16	hour	PAVEMENT MARKING
																					LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE
													7.89				SPECIAL	53001100	7.89	CY	MISCELLANEOUS STRUCTURE
														6.21			SPECIAL	53001100	6.21	CY	STRUCTURES: CONCRETE- BASE BID
															2.17		SPECIAL	53001100	2.17	CY	STRUCTURES: CONCRETE- ALT BID 1
																3.88	SPECIAL	53001100	3.88	CY	STRUCTURES: CONCRETE- ALT BID 2
																	SPECIAL	53001100		CY	STRUCTURES: CONCRETE- ALT BID 3
																					INCIDENTALS
											8	4					630	80510	12	EACH	SIGN, STREET NAME
											5	4					630	80100	9	SF	SIGN, FLAT SHEET
											1						642	50040	LS		PAVEMENT MARKING, MISC.:
																					MAINTENANCE OF TRAFFIC
								6	22	19							614	12440	47	EACH	WORK ZONE SIGN SUPPORT
								1,224									614	23000	1,224	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 8"
									20	20							614	26000	40	FT	WORK ZONE STOP LINE, CLASS I
									6								SPECIAL	61411300	6	EACH	WORK ZONE TRAFFIC SIGNAL

HORIZONTAL  
SCALE IN FEET

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER

PAT

REVIEWER

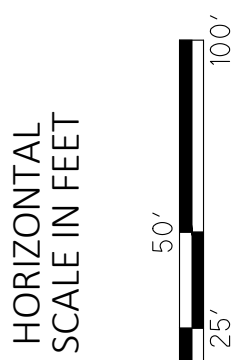
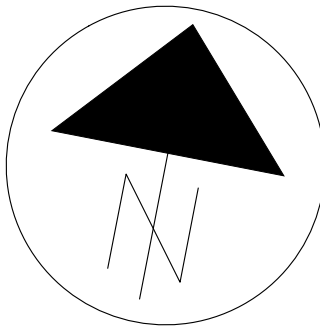
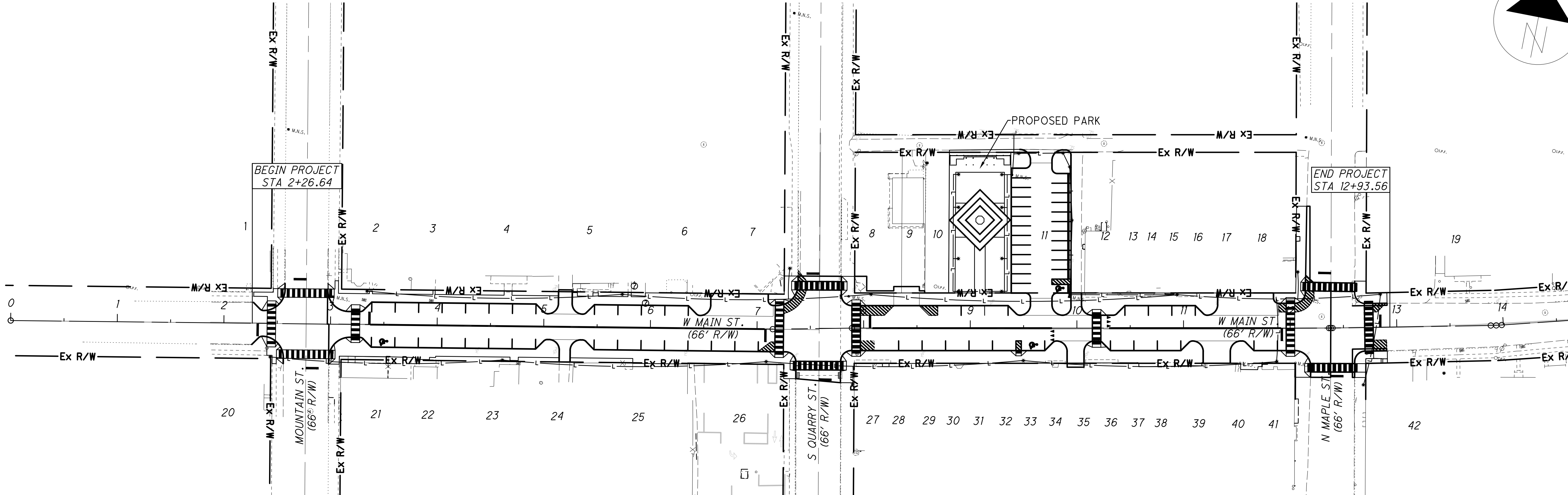
JRP 06/06/25

PROJECT ID

SUBSET	TOTAL
--------	-------

SHEET	TOTAL
P.4	70





SCHEMATIC PLAN

#	PID	OWNER
1	231112016000	CHESTER, STEPHANIE
2	231112013000	BRAY, ALBERT A
3	231112010000	LEGG, NAOMI T.O.D.
4	231112008000	JOHNSON, DALE E JR & JANE
5	231112006000	WDE PROPERTIES, LLC
6	231112004000	MUSTARD, RONALD C
7	231112002000	SINGH, PRITAMPAL
8	231112028000	JOHN NEWMAN
9	231112029000	JOHN NEWMAN
10	231112032000	RHONDA MOORE
11	231112041000	VILLAGE OF BAINBRIDGE, THE
12	231112045000	HAMILTON, NATHANIEL & JEREMIAH
13	231112046000	BRILL, JOHN TRACY
14	231112049000	BRILL, JOHN C & TRACY A JTLE
15	231112049000	MAY, SHERRY
16	231112051000	MCELWEE, MANDY & RICKY
17	231112053000	MCELWEE, MANDY & RICKY
18	231112055000	WAITE, ASTON & JILLIAN
19	231112058000	PAXTON THEATRE FOUNDATION
20	231112015000	WILSON, GARY G T.O.D. WILSON,
21	231112012000	LEEDOM, LORETTA L
22	231112009000	SMITH, CHRISTY M
23	231112007000	WAGONER, THOMAS G& TINE M JTLE
24	231112005000	THOMPSON, TYLER & BARTON, ALEX
25	231112003000	THOMPSON, TYLER & BARTON, ALEX
26	231112001000	ROCKHOLD BROWN CO BANK, THE
27	231112026000	ROCKHOLD, BROWN & CO
28	231112027000	LLOYD, BYRON M & MOLLY M
29	231112030000	LLOYD, BYRON M & MOLLY M
30	231112031000	LLOYD, BYRON M & MOLLY M
31	231112577000	KINSLEY PROPERTY LIMITED
32	231112036000	KINSLEY PROPERTY LIMITED
33	231112037000	KINSLEY PROPERTY LIMITED
34	231112038000	KINSLEY PROPERTY LIMITED
35	231112042000	LEWIS, CHRISTOPHER G & LEAH K
36	231112043000	JOHNSON, SAMUEL K JR
37	231112044000	SHAW, CYNTHIA C ETAL 2
38	231112047000	SHAW, CYNTHIA C ETAL 2
39	231112048000	JOHNSON, SUE GRANGER
40	231112052000	JOHNSON, SUE GRANGER
41	231112662000	PAXTON THEATRE FOUNDATIO
42	231112056000	BAINBRIDGE SENIOR CITIZENS

DESIGN AGENCY

AMERICAN

STRUCTUREPOINT

INC.

DESIGNER

PAT

REVIEWER

JRP 06/06/25

PROJECT ID

SUBSET

TOTAL

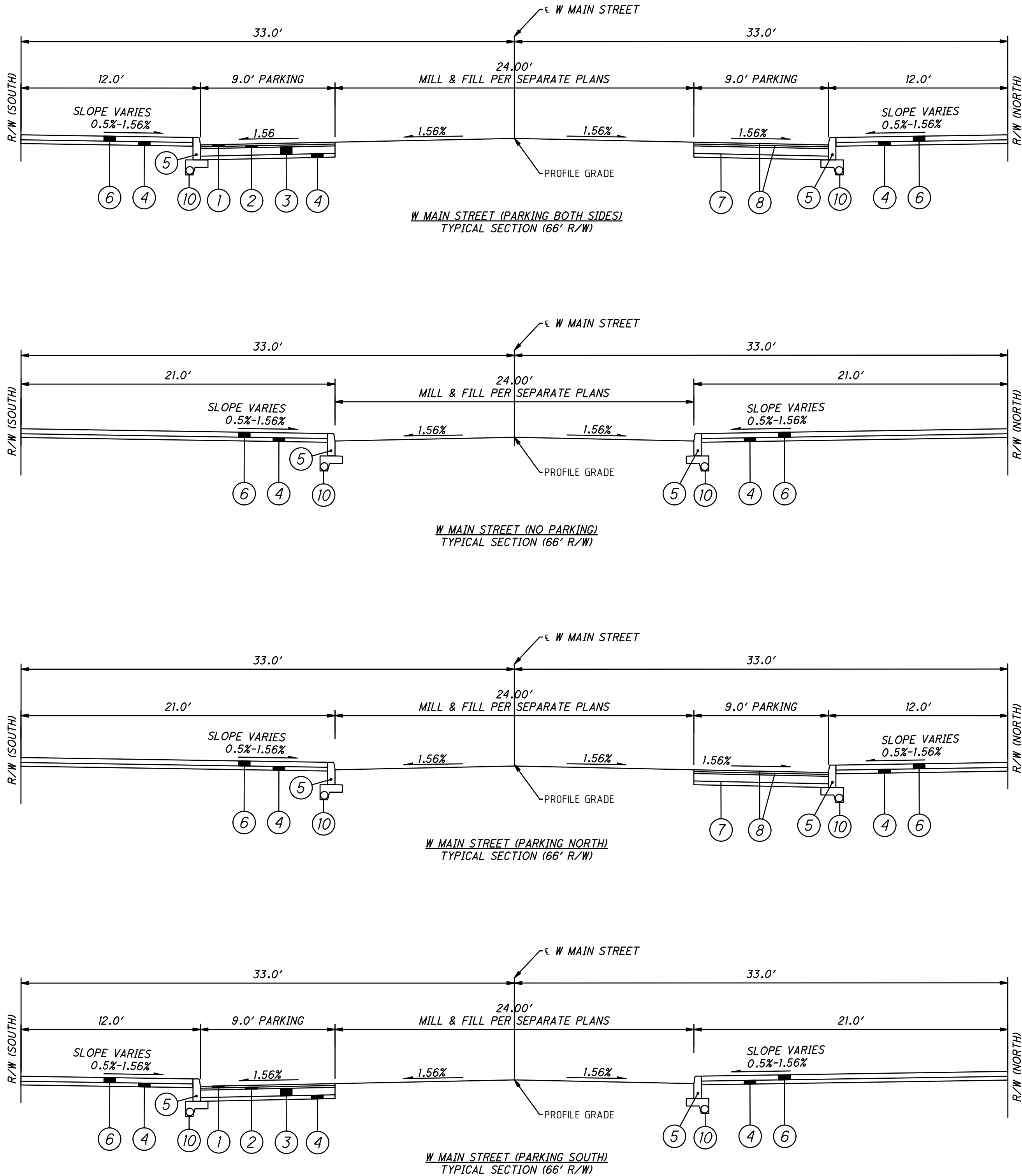
SHEET

P.5

TOTAL

70





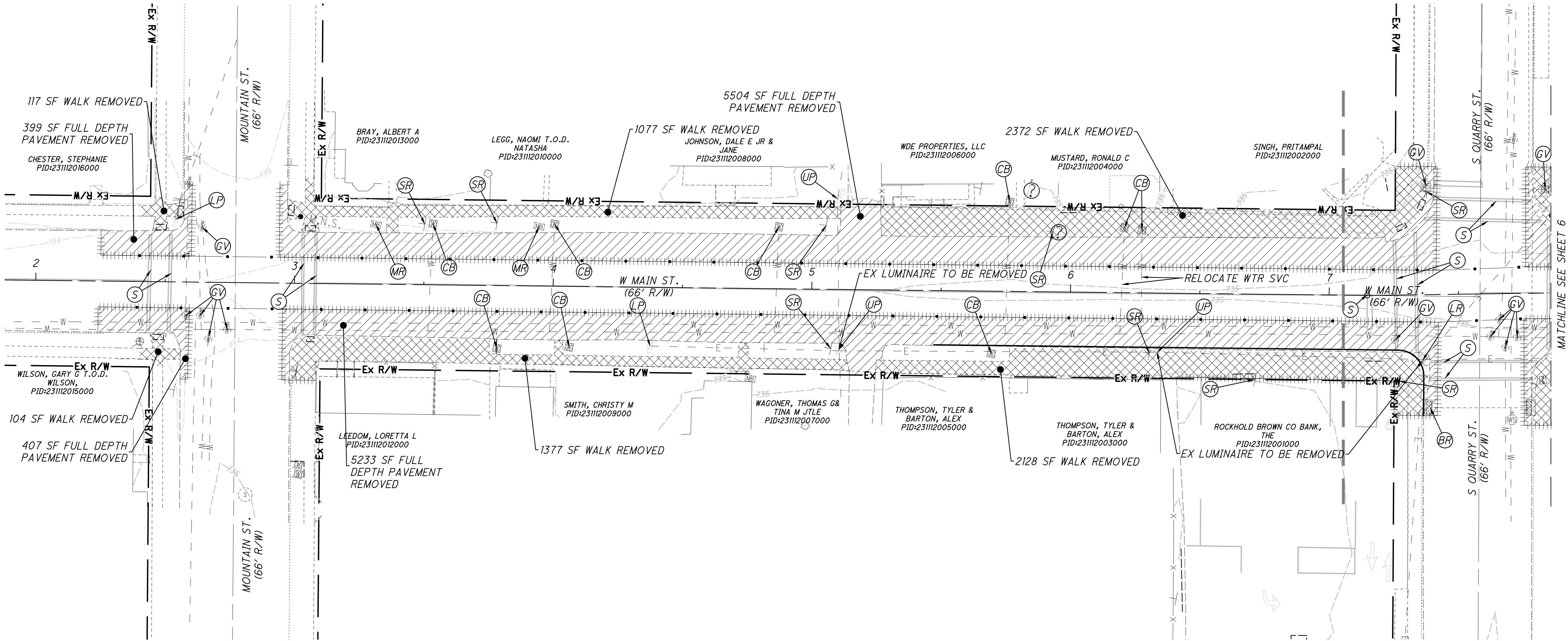
- LEGEND
- 1 ITEM 441 (449) - 1-1/2" SURFACE ASPHALT TYPE 1
  - 2 ITEM 441 (449) - 1-1/2" INTERMEDIATE ASPHALT TYPE 2
  - 3 ITEM 301 - 6" BITUMINOUS AGGREGATE BASE, TWO COURSES
  - 4 ITEM 304 - 3" AGGREGATE BASE
  - 5 ITEM 609 - BARRIER CURB, CURB VARIES FROM 4" TO 6" (SEE GRADING PLAN FOR MORE DETAILS)
  - 6 ITEM 608 - CONCRETE WALK, 4"
  - 7 ITEM 203 - SUBGRADE COMPACTION
  - 8 ITEM 408 - NON-TRACKING PRIME COAT (0.3 GAL/SY) OR ITEM 407 - NON-TRACKING TACK COAT (0.075 GAL/SY)
  - 9 ITEM 659 - SEEDING AND MULCHING
  - 10 ITEM 605 AND 707.33 6" SHALLOW UNDERDRAIN WITH FILTER SOCK IN #8 WASHED STONE

TYPICAL SECTIONS

HORIZONTAL  
SCALE IN FEET

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP 06/06/25	
PROJECT ID	
SUBSET	TOTAL
SHEET	TOTAL
P.6	70





- BR

-

STRUCTURE TO BE REMOVED

SR

-

SIGN TO BE REMOVED AND RELOCATED

MR

-

MAILBOX TO BE REMOVED AND RELOCATED

LP

-

LIGHT POLE TO BE REMOVED

LR

-

LIGHT POLE TO BE RELOCATED (BY OTHERS)

UP

-

UTILITY POLE TO REMAIN (PROTECT EXISTING UTILITY DURING CONSTRUCTION)

GV

-

GATE VALVE TO BE ADJUSTED TO GRADE

CB

-

CURB BOX ADJUSTED TO GRADE

TR

-

TREE TO BE REMOVED
- S

-

REPLACE EXISTING STRIPING IN KIND

ST

-

ADJUST TO GRADE

FH

-

RELOCATE FIRE HYDRANT
- NOTE

CONTRACTOR TO PROTECT EXISTING UTILITIES UNLESS OTHERWISE NOTED ON PLAN

SEE LIGHTING PLAN SHEETS 50-51 FOR LIGHT POLE REMOVAL AND RELOCATION DETAILS

- LEGEND
- ROADWAY CONSTRUCTION LIMITS

-

FULL-DEPTH PAVEMENT/ CONCRETE WALK SAWCUT

-

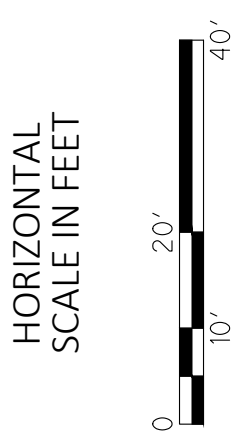
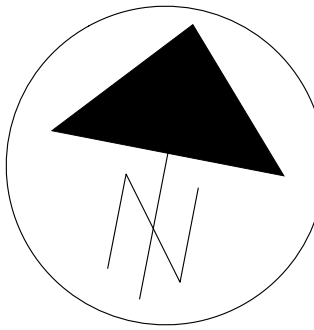
WALK REMOVAL

-

FULL DEPTH PAVEMENT REMOVAL

-

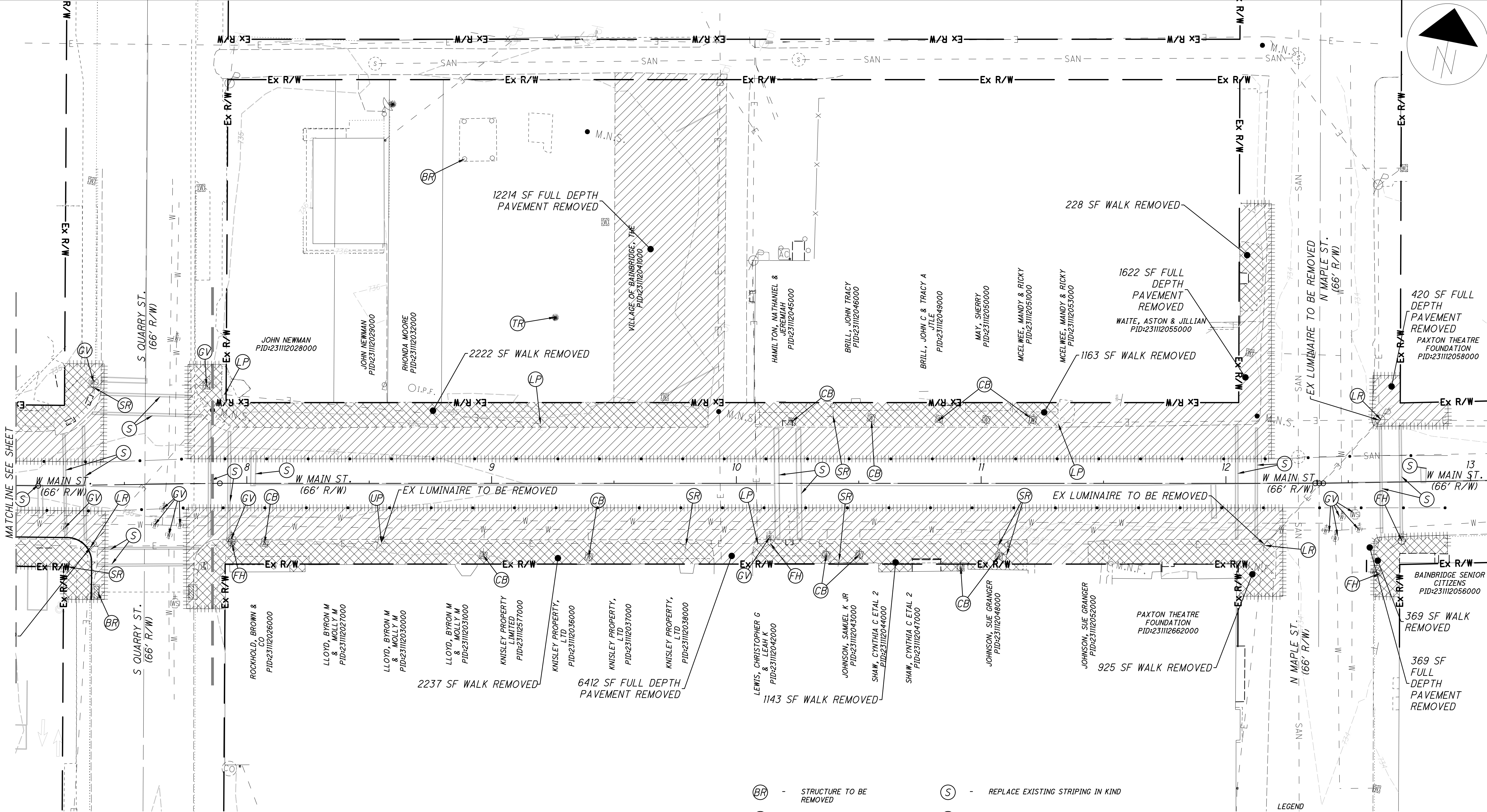
TREE/SHRUB REMOVAL



DEMOLITION PLAN

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	PAT
REVIEWER	JRP
PROJECT ID	06/06/25
SUBSET	TOTAL
SHEET	TOTAL
P.7	70





- BR

-

STRUCTURE TO BE REMOVED
- SR

-

SIGN TO BE REMOVED AND RELOCATED
- MR

-

MAILBOX TO BE REMOVED AND RELOCATED
- LP

-

LIGHT POLE TO BE REMOVED
- LR

-

LIGHT POLE TO BE RELOCATED (BY OTHERS)
- UP

-

UTILITY POLE TO REMAIN (PROTECT EXISTING UTILITY DURING CONSTRUCTION)
- GV

-

GATE VALVE TO BE ADJUSTED TO GRADE
- CB

-

CURB BOX ADJUSTED TO GRADE
- TR

-

TREE TO BE REMOVED
- S

-

REPLACE EXISTING STRIPING IN KIND
- ST

-

ADJUST TO GRADE
- FH

-

RELOCATE FIRE HYDRANT

NOTE  
CONTRACTOR TO PROTECT EXISTING UTILITIES UNLESS OTHERWISE NOTED ON PLAN  
SEE LIGHTING PLAN SHEETS 50-51 FOR LIGHT POLE REMOVAL AND RELOCATION DETAILS

- -

ROADWAY CONSTRUCTION LIMITS
- |||||

-

FULL-DEPTH PAVEMENT/ CONCRETE WALK SAWCUT
- [Cross-hatch pattern]

-

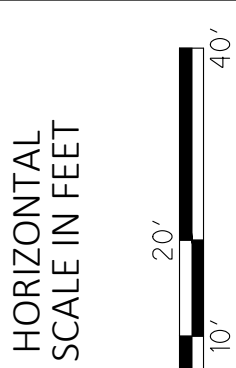
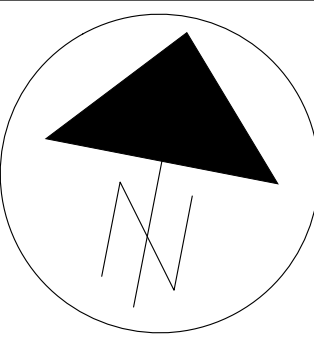
WALK REMOVAL
- [Diagonal hatch pattern]

-

FULL DEPTH PAVEMENT REMOVAL
- [Tree symbol]

-

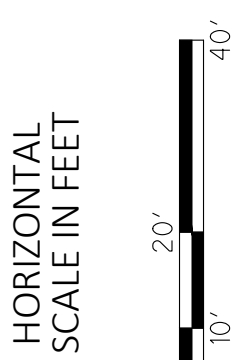
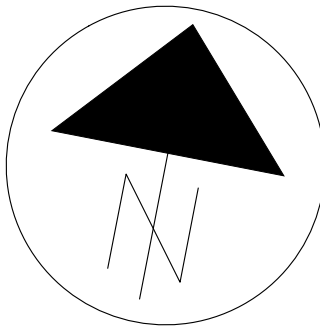
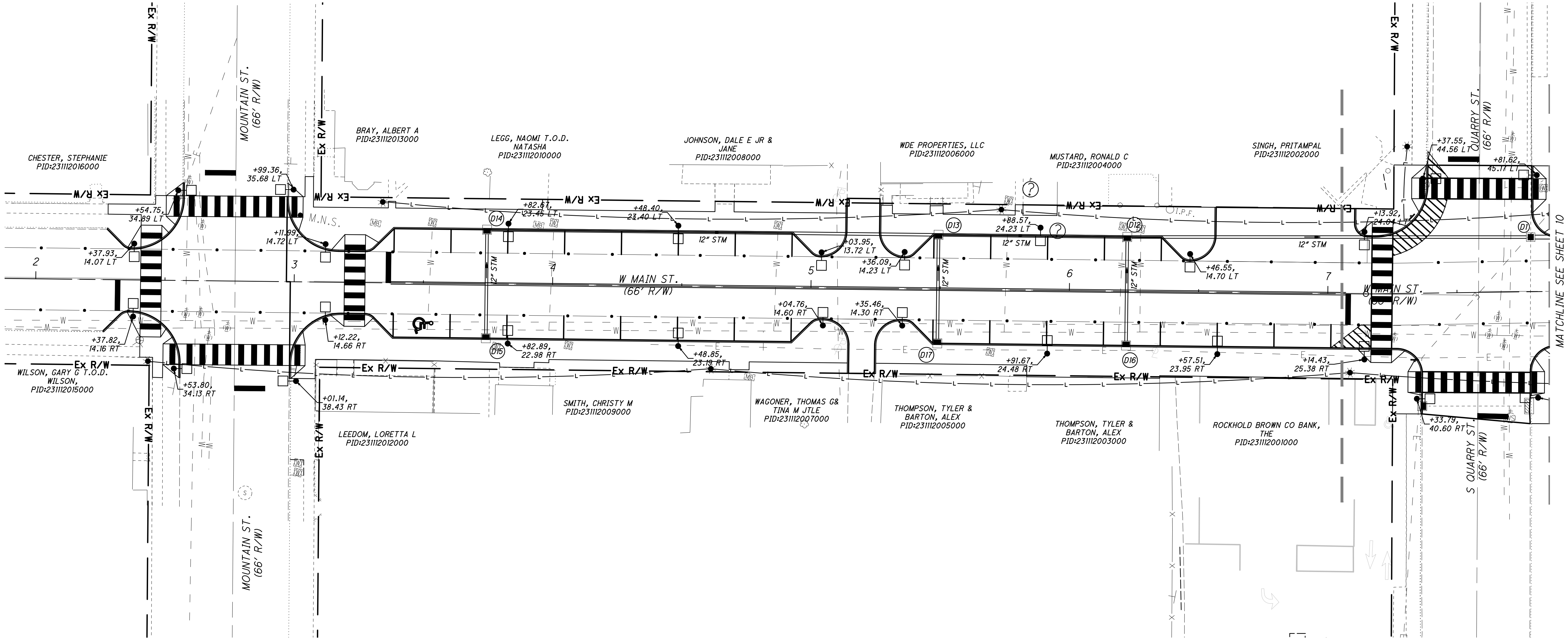
TREE/SHRUB REMOVAL



DEMOLITION PLAN

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	PAT
REVIEWER	JRP 06/06/25
PROJECT ID	
SUBSET	TOTAL
SHEET	TOTAL
P.8	70

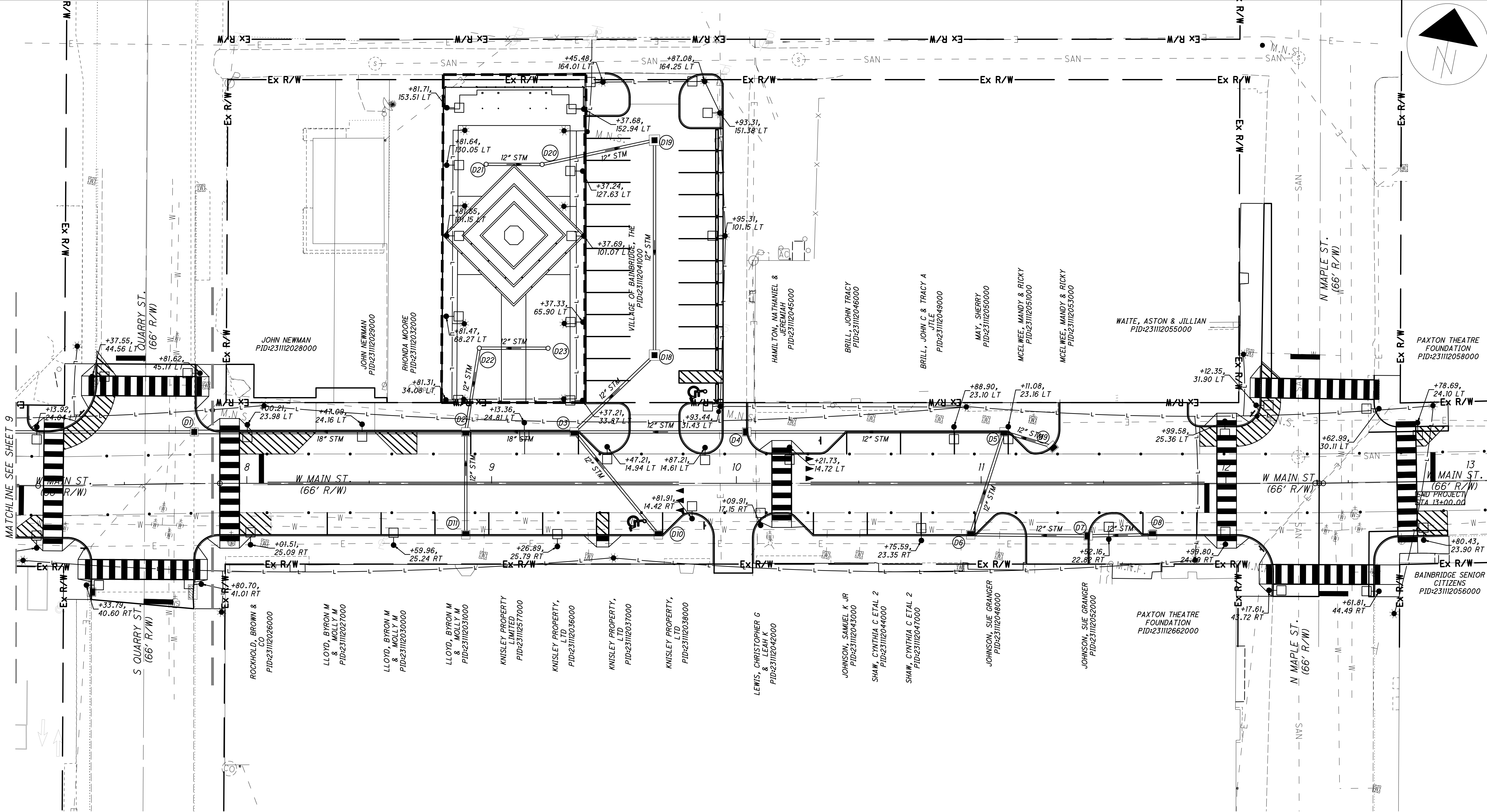




UTILITY PLAN

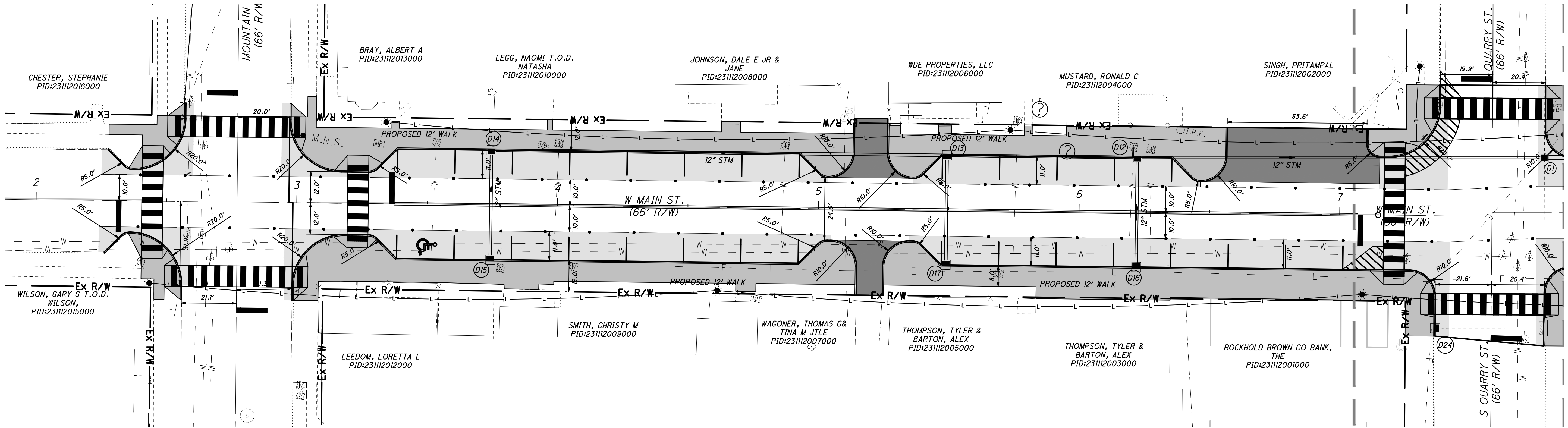
DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP 06/06/25	
PROJECT ID	
SUBSET TOTAL	
SHEET TOTAL	
P.9	70





UTILITY PLAN

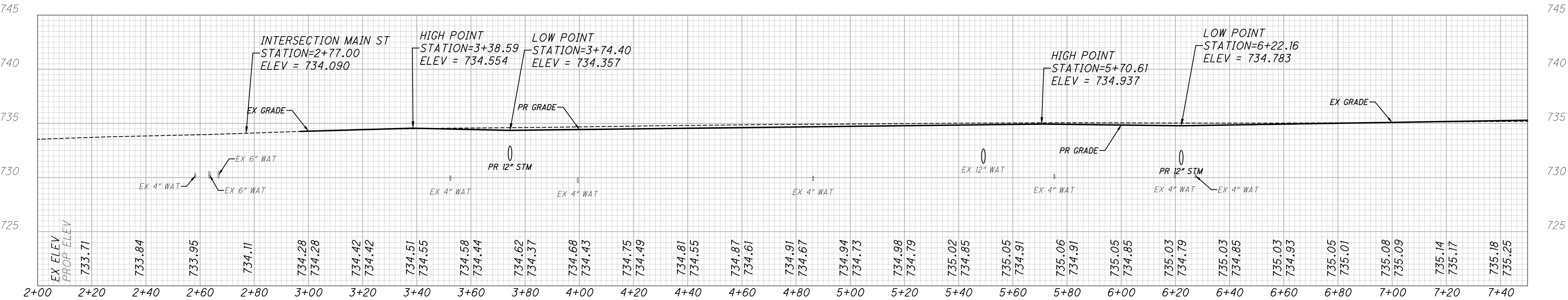
HORIZONTAL SCALE IN FEET	
0 10' 20' 40'	
DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP 06/06/25	
PROJECT ID	
SUBSET TOTAL	
SHEET TOTAL	
P.10	70



MATCHLINE SEE SHEET 8

LEGEND

- PROPOSED WALK
- CONCRETE DRIVE (PER CITY OF COLUMBUS STANDARD DRAWING 2202)
- FULL DEPTH PAVEMENT



HORIZONTAL  
SCALE IN FEET

PLAN & PROFILE

DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

PAT

REVIEWER

JRP 06/06/25

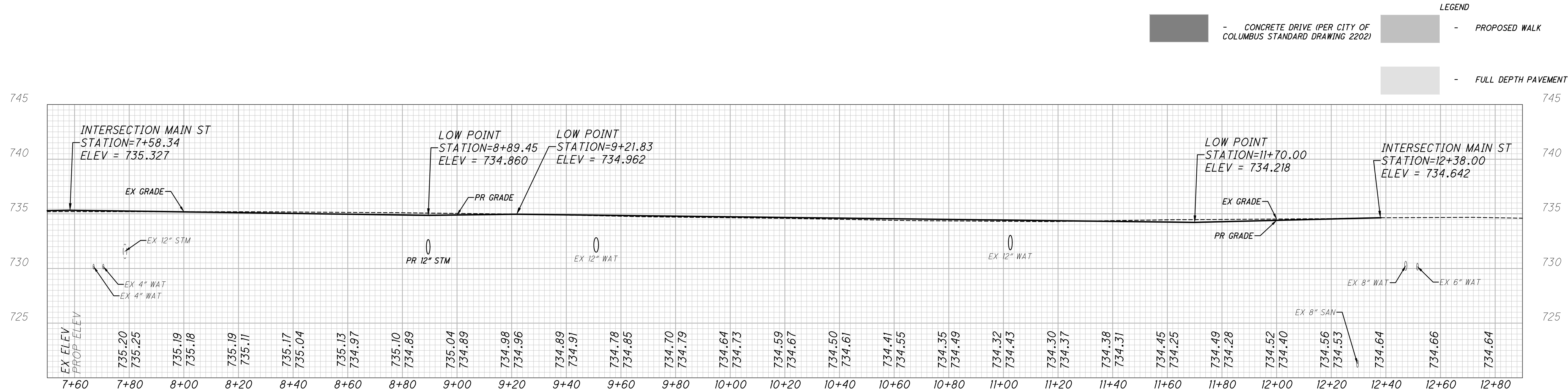
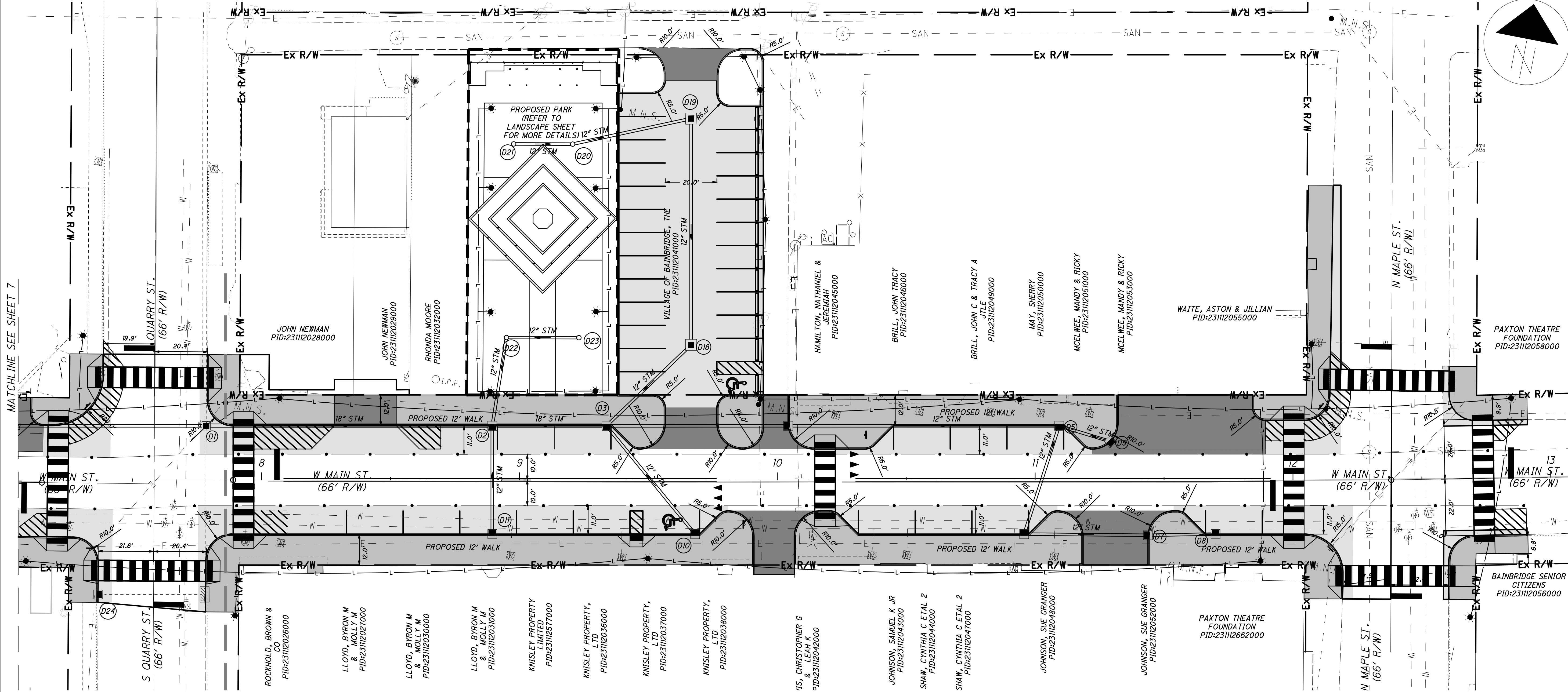
PROJECT ID

SUBSET TOTAL

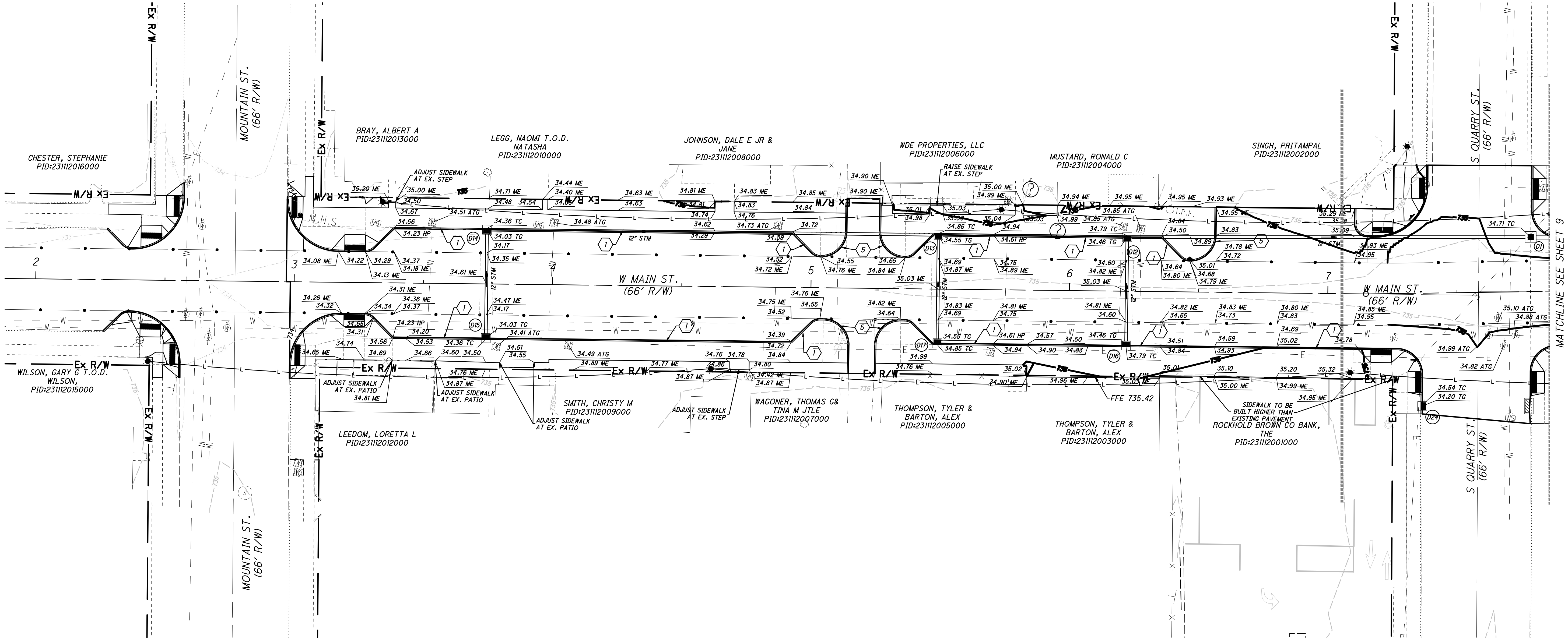
SHEET TOTAL

P.11 70



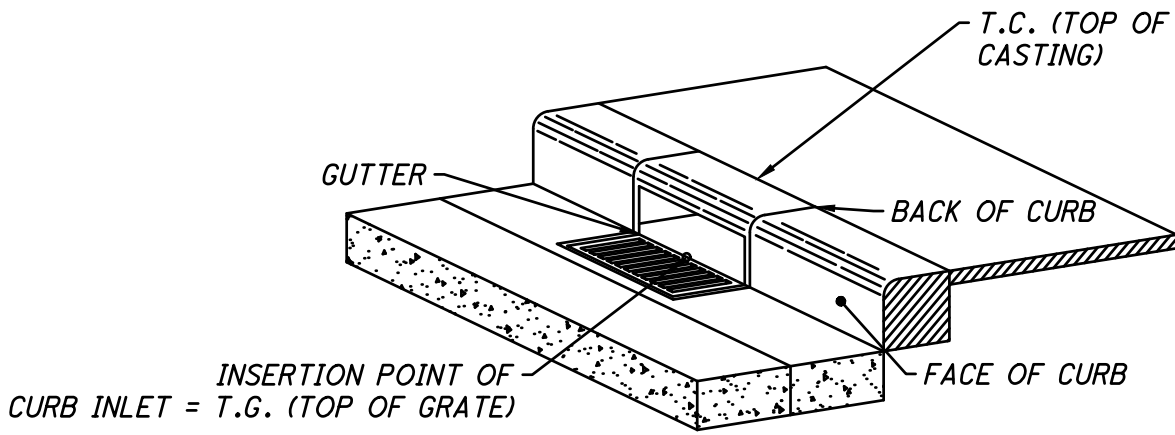


PLAN & PROFILE



GRADING NOTE:

ADD 700.00 TO ALL SPOT ELEVATIONS TO OBTAIN NAVD88 ELEVATIONS.  
SEE SHEETS 27-29 FOR INTERSECTION DETAIL GRADING  
T.G. (TOP OF GRATE) ELEVATION AND LOCATION FOR ALL CURB AND GUTTER INLETS IS IN REFERENCE TO THE GUTTER ELEVATION



CODED NOTES

- 1 4" CURB
- 2 2" CURB
- 3 6" CURB
- 4 CURB TAPER FROM 6" TO FLUSH
- 5 CURB TAPER FROM 4" TO FLUSH

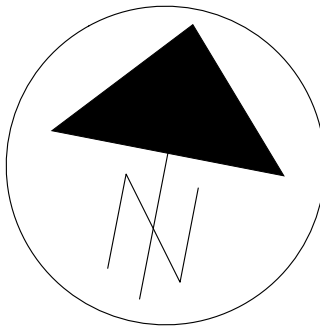
GRADING LEGEND

- XXX PROPOSED MAJOR CONTOUR
- XXX PROPOSED MINOR CONTOUR
- XXX EXISTING MAJOR CONTOUR
- XXX EXISTING MINOR CONTOUR
- FFE=110.00 FINISHED FLOOR ELEVATION
- x10.00 SPOT ELEVATION
- x100.00 TC TOP OF CASTING ELEVATION
- x100.00 TG TOP OF GUTTER ELEVATION
- x10.00 HP HIGH POINT ELEVATION
- x10.00 ME MATCH EXISTING ELEVATION
- x.xx% SLOPE ARROW
- ATG ADJUST TO GRADE
- CONSTRUCTION LIMIT

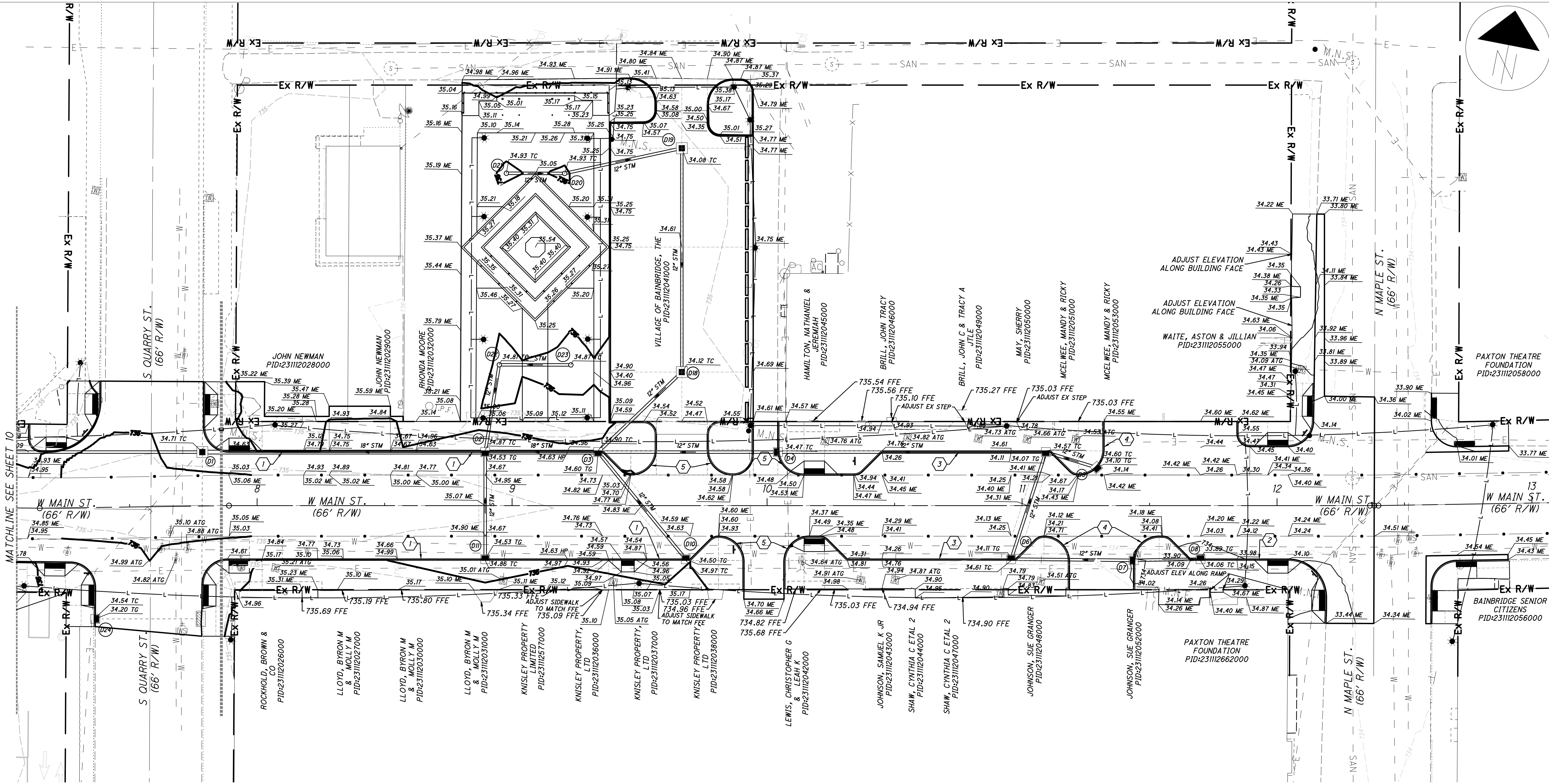
DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	PAT
REVIEWER	JRP
PROJECT ID	
06/06/25	
SUBSET TOTAL	
SHEET TOTAL	
P.13	70

GRADING PLAN

MATCHLINE SEE SHEET 9





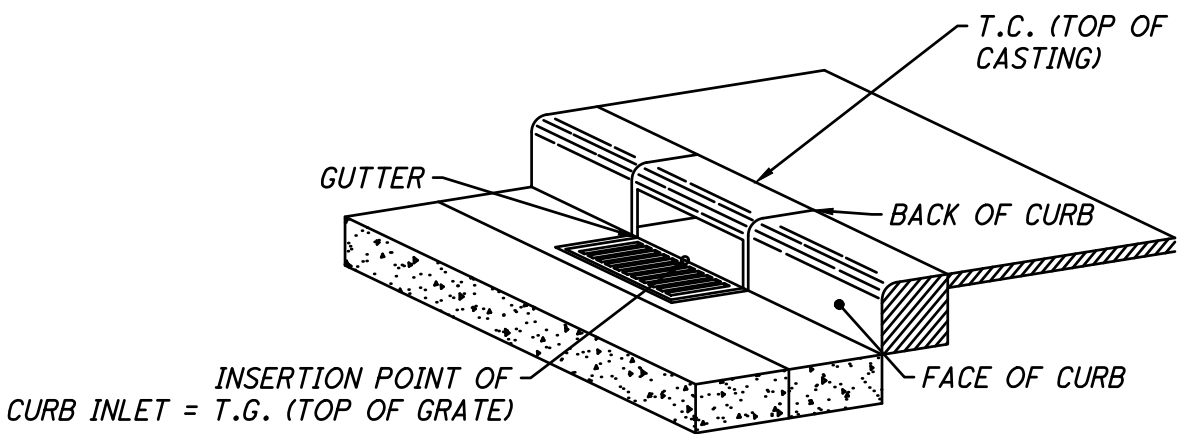


GRADING NOTE:

ADD 700.00 TO ALL SPOT ELEVATIONS TO OBTAIN NAVD88 ELEVATIONS.

SEE SHEETS 27-29 FOR INTERSECTION DETAIL GRADING

T.G. (TOP OF GRATE) ELEVATION AND LOCATION FOR ALL CURB AND GUTTER INLETS IS IN REFERENCE TO THE GUTTER ELEVATION



CODED NOTES

- 1 4" CURB
- 2 2" CURB
- 3 6" CURB
- 4 CURB TAPER FROM 6" TO FLUSH
- 5 CURB TAPER FROM 4" TO FLUSH

GRADING LEGEND

- XXX PROPOSED MAJOR CONTOUR
- XXX PROPOSED MINOR CONTOUR
- XXX EXISTING MAJOR CONTOUR
- XXX EXISTING MINOR CONTOUR
- FFE=110.00 FINISHED FLOOR ELEVATION
- x10.00 SPOT ELEVATION
- x100.00 TC TOP OF CASTING ELEVATION
- x100.00 TG TOP OF GUTTER ELEVATION
- x10.00 HP HIGH POINT ELEVATION
- x10.00 ME MATCH EXISTING ELEVATION
- x.xx% SLOPE ARROW
- ATG ADJUST TO GRADE
- CONSTRUCTION LIMIT

HORIZONTAL  
SCALE IN FEET

0102040

GRADING PLAN

DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT INC.

DESIGNER

PAT

REVIEWER

JRP 06/06/25

PROJECT ID

SUBSET

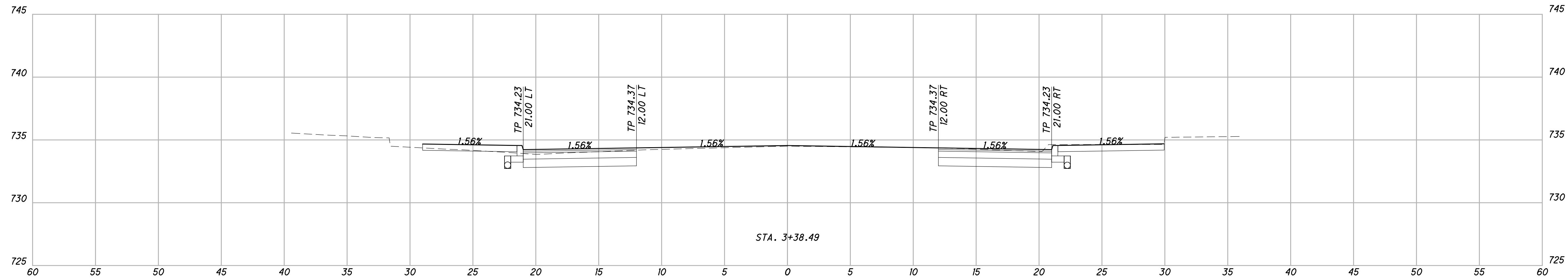
TOTAL

SHEET

P.14

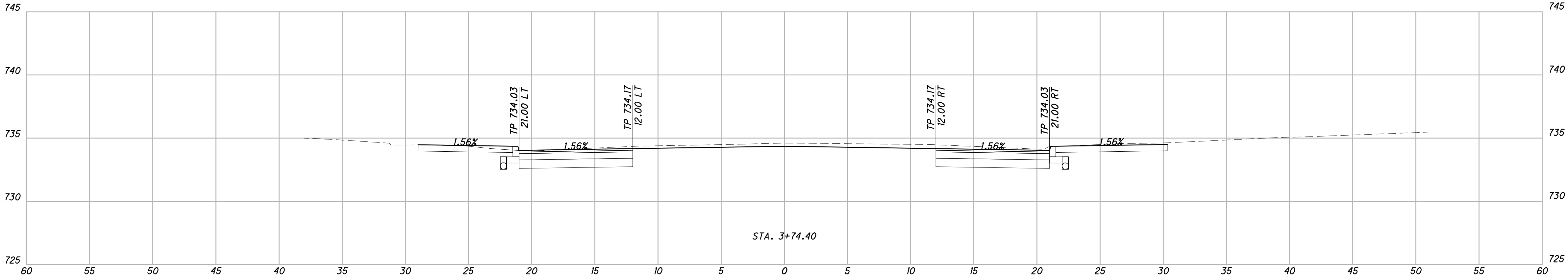
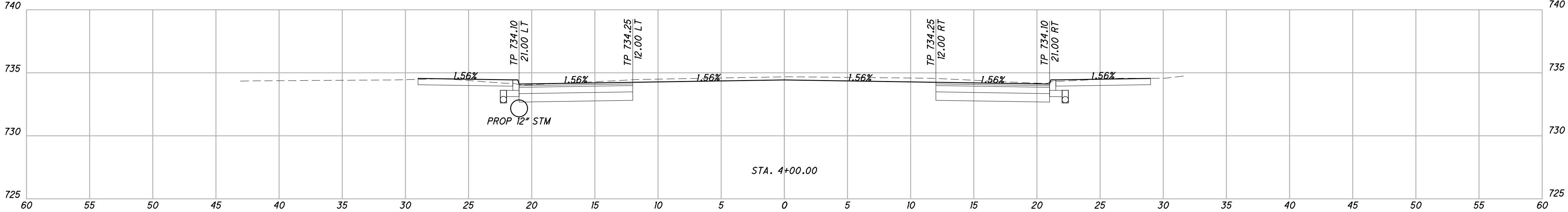
TOTAL

70



DESIGN AGENCY <b>AMERICAN STRUCTUREPOINT</b> INC.	
DESIGNER	
PAT	
REVIEWER	
JRP	7/14/25
PROJECT ID	
SUBSET	TOTAL
SHEET	TOTAL
P.15	70





CROSS SECTIONS - MAIN STREET  
STA. 3+74.40 TO STA. 4+00.00

DESIGN AGENCY



DESIGNER

PAT

REVIEWER

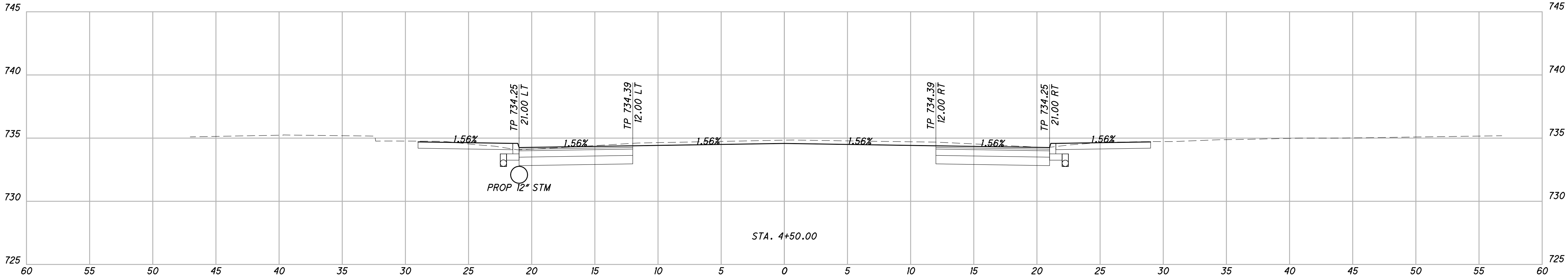
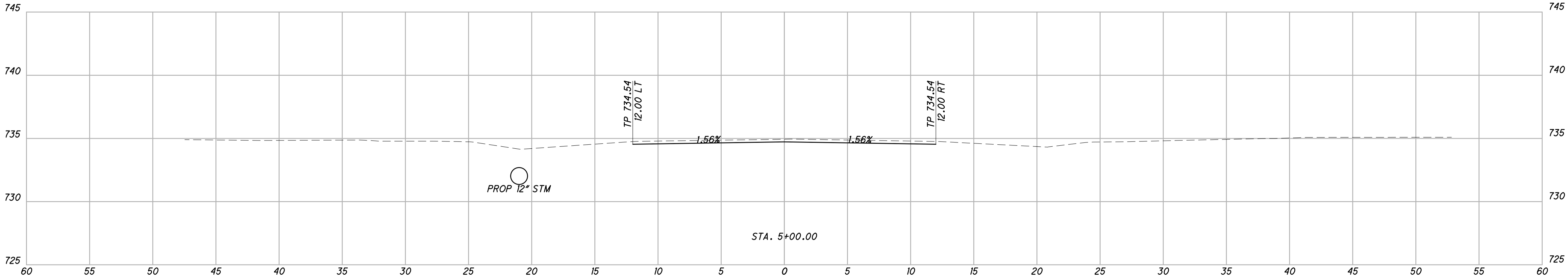
JRP 7/14/25

PROJECT ID

SUBSET TOTAL

SHEET TOTAL

P.16 70



CROSS SECTIONS - MAIN STREET  
STA. 4+50.00 TO STA. 5+00.00

DESIGN AGENCY



DESIGNER

PAT

REVIEWER

JRP 7/14/25

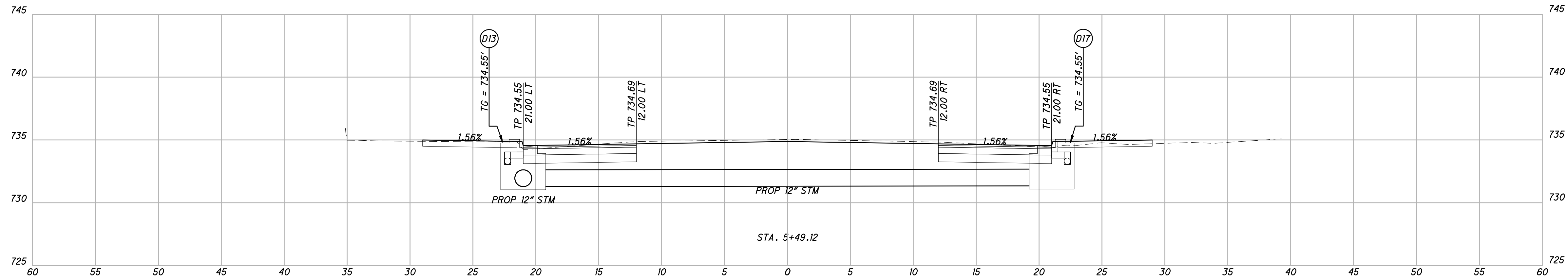
PROJECT ID

SUBSET TOTAL

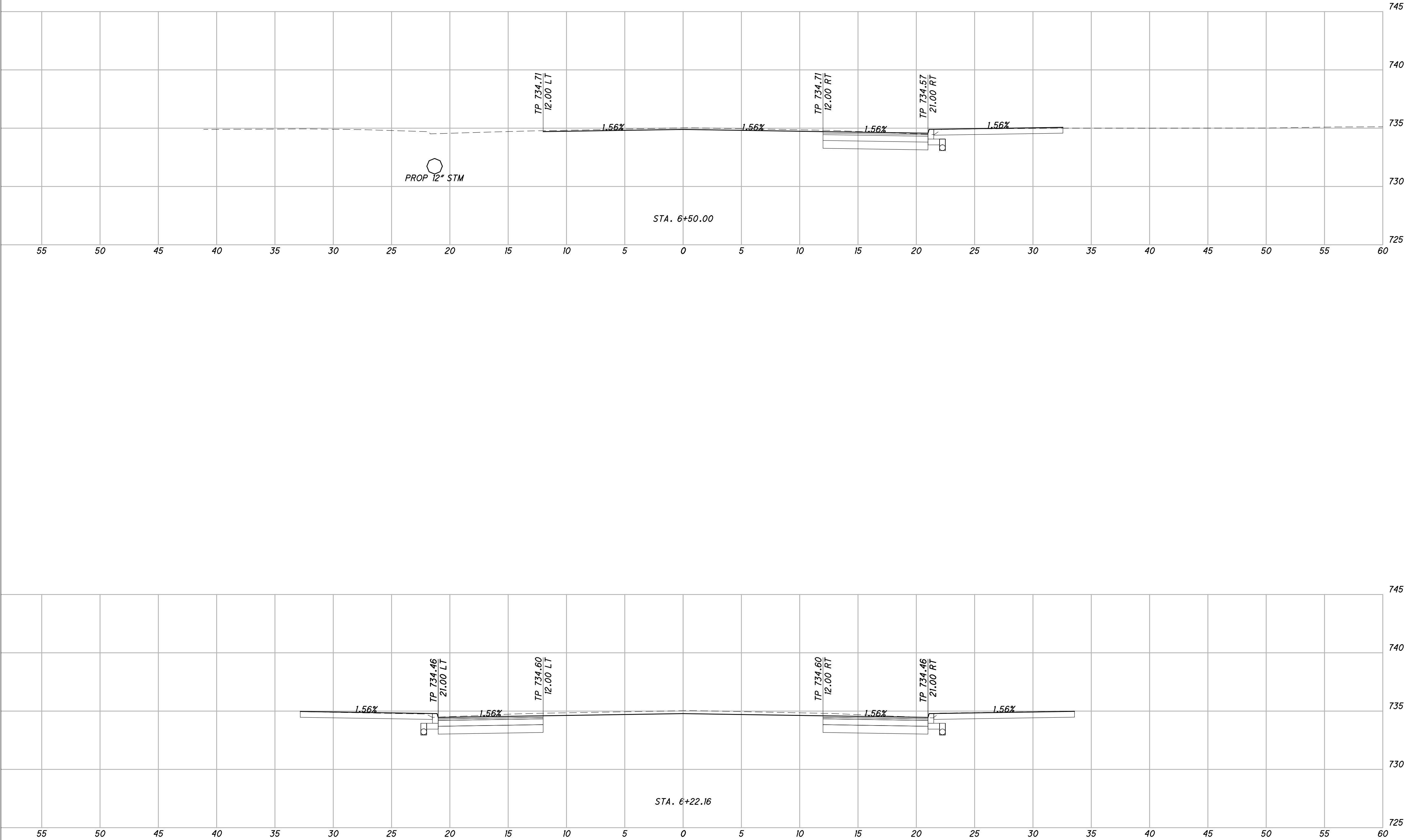
SHEET TOTAL

P.17 70





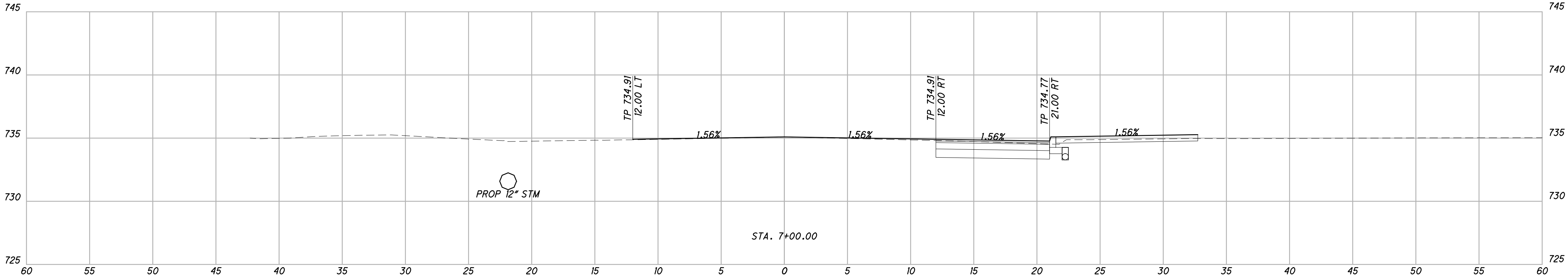
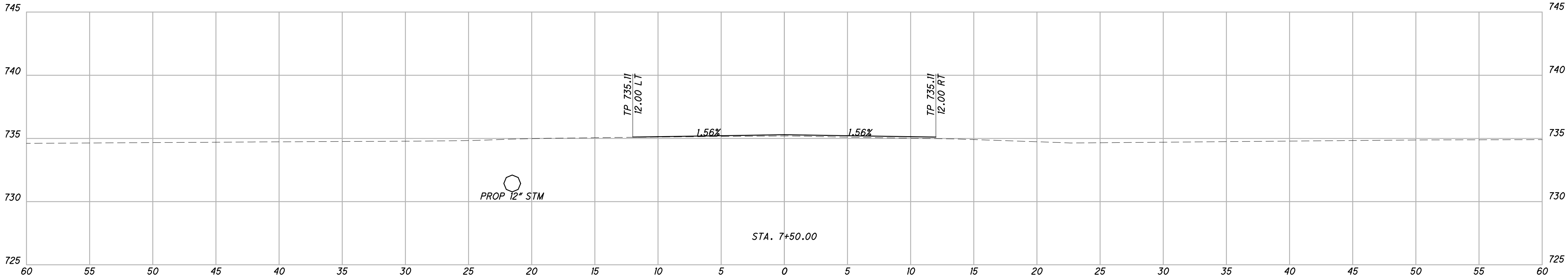
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DESIGNER	
PAT	
REVIEWER	
JRP	7/14/25
PROJECT ID	
SUBSET	TOTAL
SHEET	TOTAL
P.18	70



CROSS SECTIONS - MAIN STREET  
STA. 6+22.15 TO STA. 6+50.00

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP 7/14/25	
PROJECT ID	
SUBSET TOTAL	
SHEET TOTAL	
P.19	70





CROSS SECTIONS - MAIN STREET  
STA. 7+00.00 TO STA. 7+50.00

DESIGN AGENCY



DESIGNER

PAT

REVIEWER

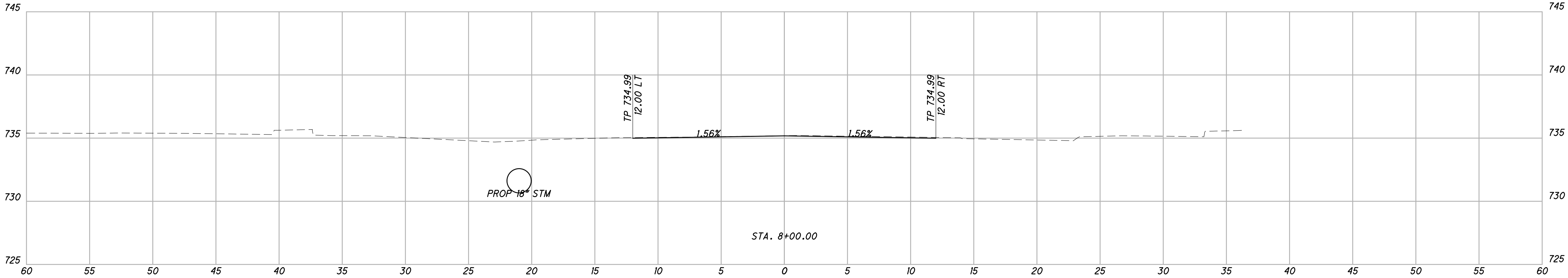
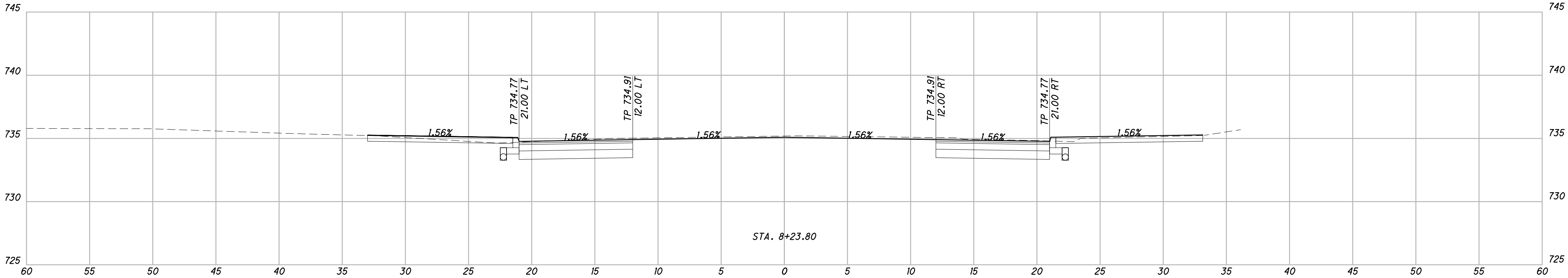
JRP 7/14/25

PROJECT ID

SUBSET TOTAL

SHEET TOTAL

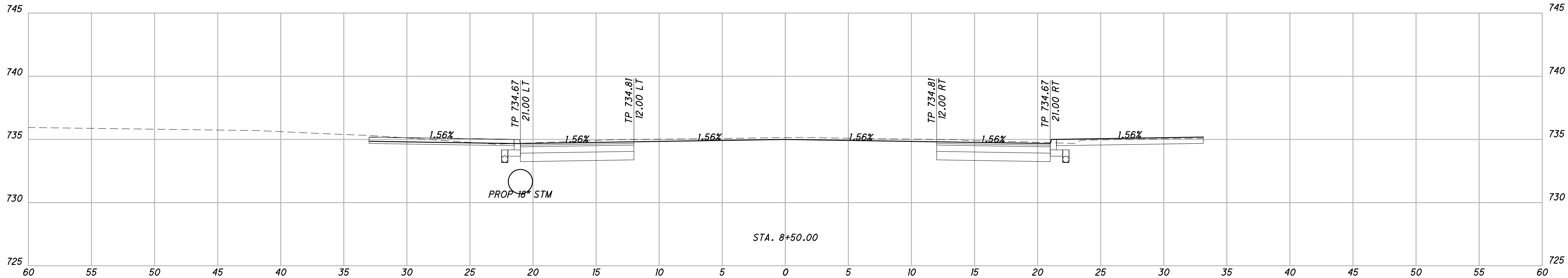
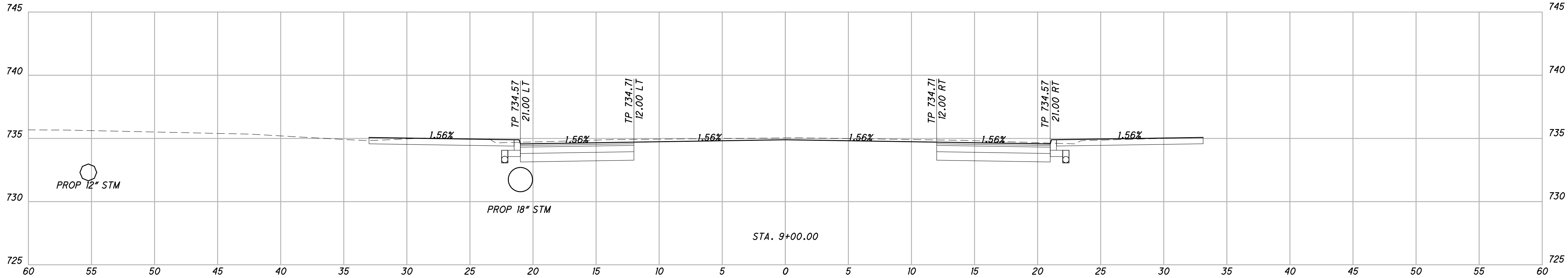
P.20 70



CROSS SECTIONS - MAIN STREET  
STA. 8+00.00 TO STA. 8+23.80

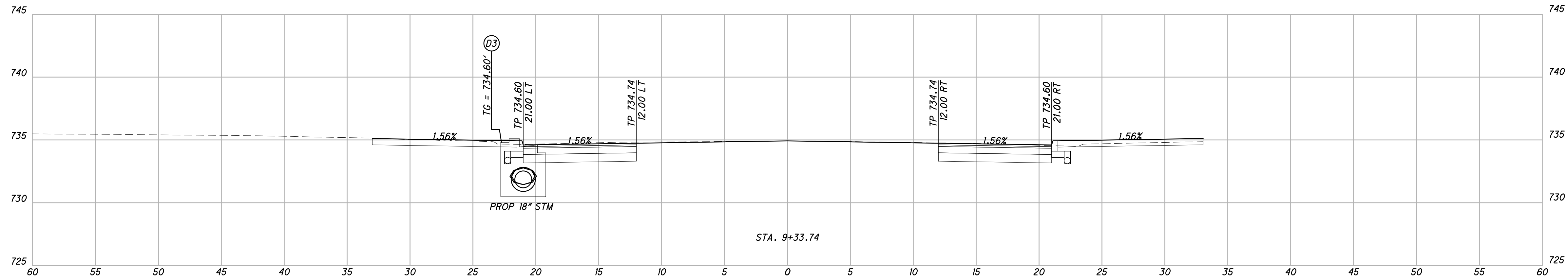
DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP	7/14/25
PROJECT ID	
SUBSET TOTAL	
SHEET	TOTAL
P.21	70





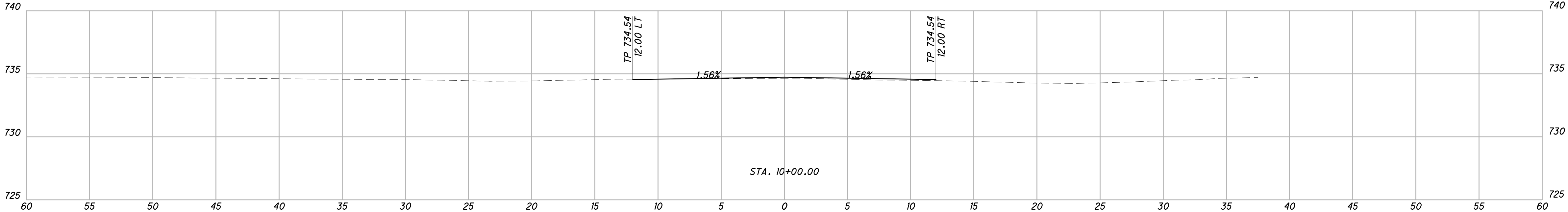
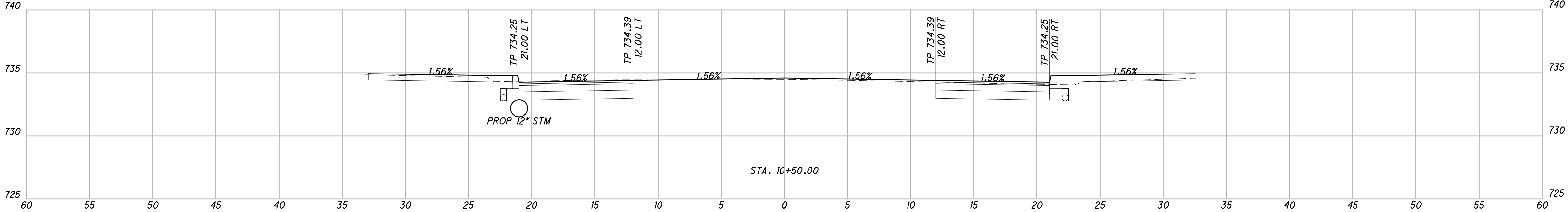
CROSS SECTIONS - MAIN STREET  
STA. 8+50.00 TO STA. 9+00.00

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP	7/14/25
PROJECT ID	
SUBSET TOTAL	
SHEET	TOTAL
P.22	70



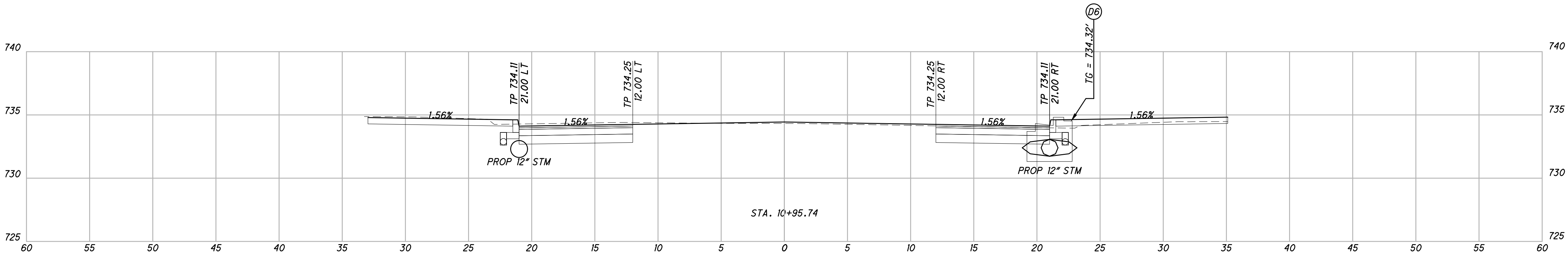
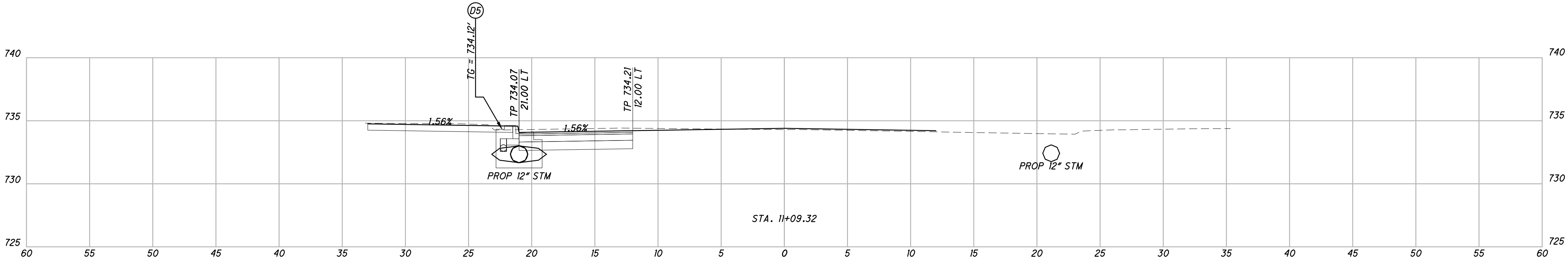
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DESIGNER	
PAT	
REVIEWER	
JRP	7/14/25
PROJECT ID	
SUBSET	TOTAL
SHEET	TOTAL
P.23	70





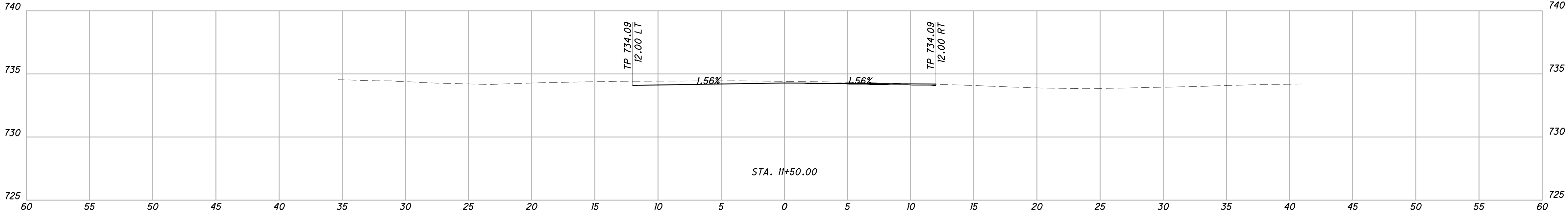
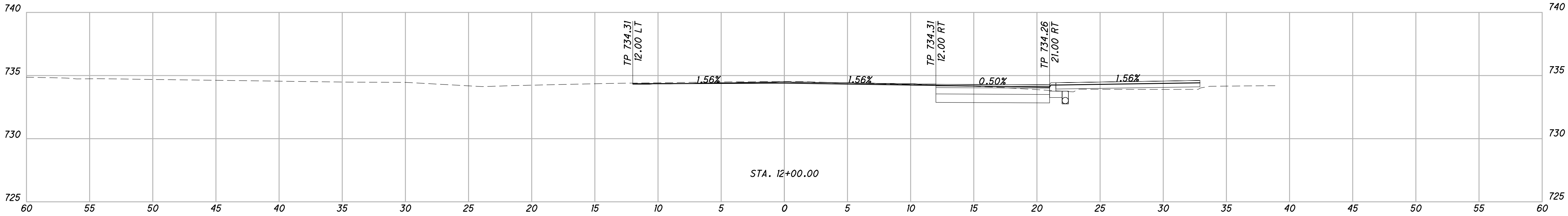
CROSS SECTIONS - MAIN STREET  
STA. 10+00.00 TO STA. 10+50.00

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP	7/14/25
PROJECT ID	
SUBSET TOTAL	
SHEET	TOTAL
P.24	70



CROSS SECTIONS - MAIN STREET  
STA. 10+95.74 TO STA. 11+09.32

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP	7/14/25
PROJECT ID	
SUBSET TOTAL	
SHEET TOTAL	
P.25	70



CROSS SECTIONS - MAIN STREET  
STA. 11+50.00 TO STA. 12+00.00

DESIGN AGENCY



DESIGNER

PAT

REVIEWER

JRP 7/14/25

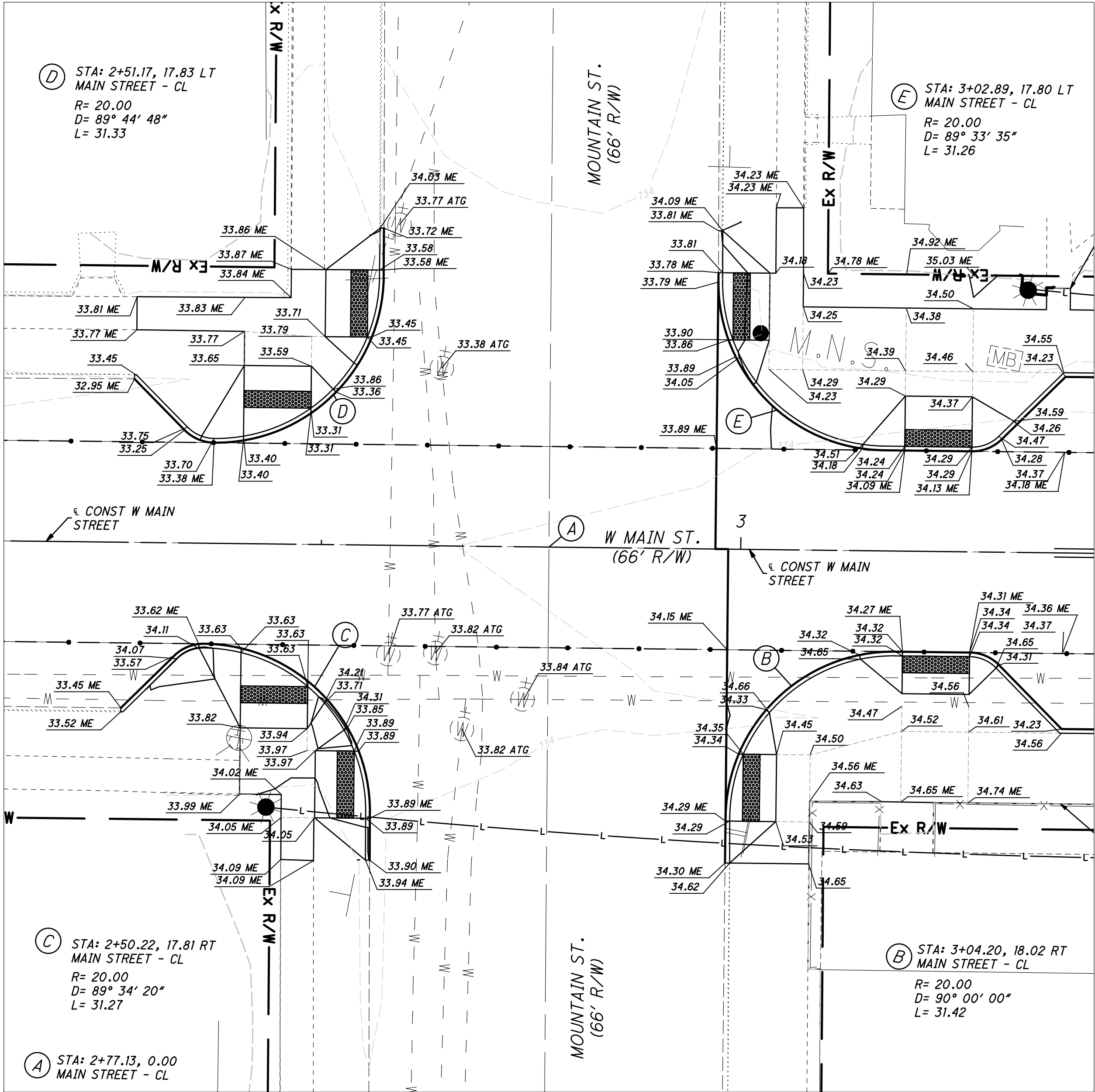
PROJECT ID

SUBSET TOTAL

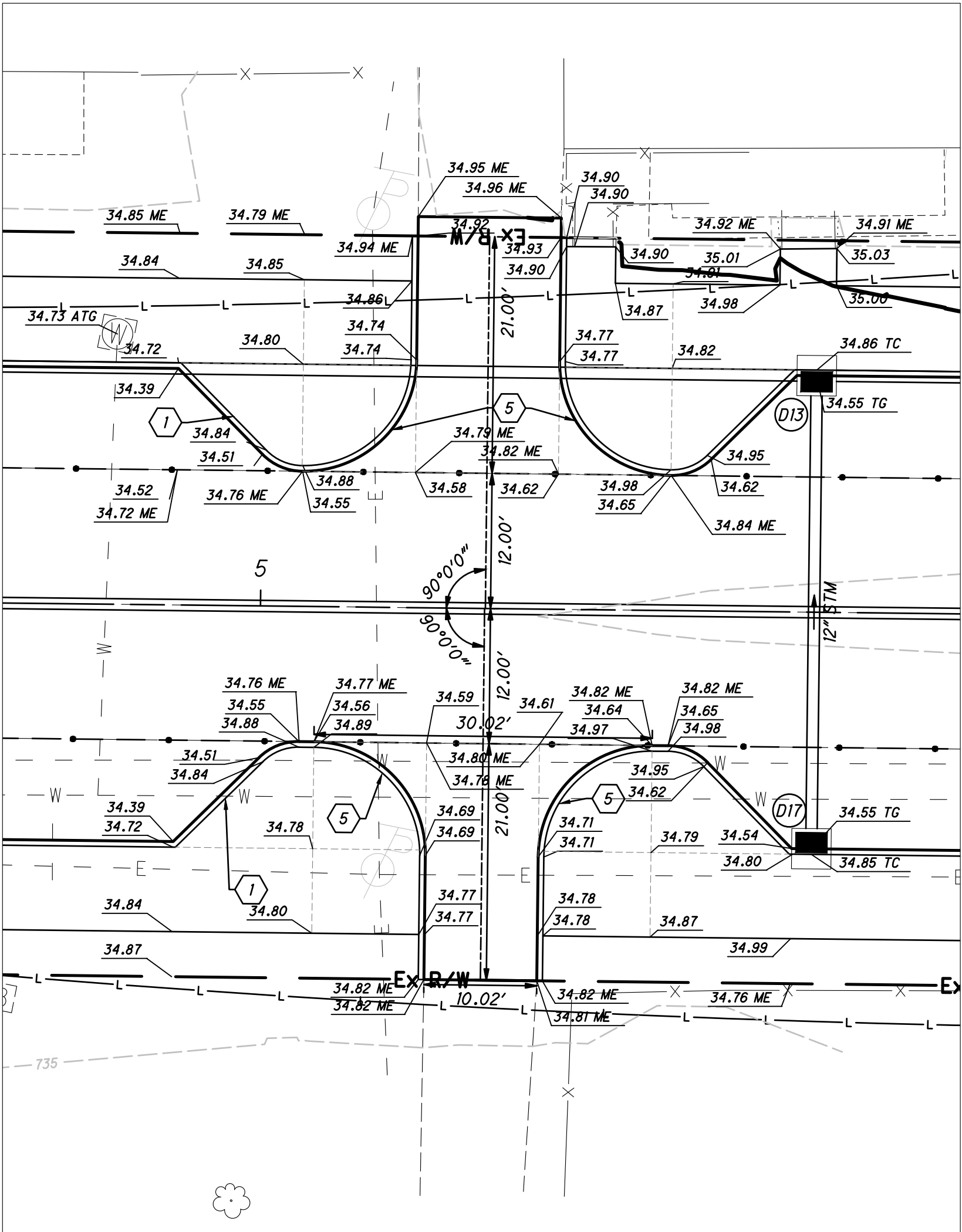
SHEET

P.26 70





W MAIN STREET AND MOUNTAIN STREET INTERSECTION DETAIL  
SCALE: 1" = 10'

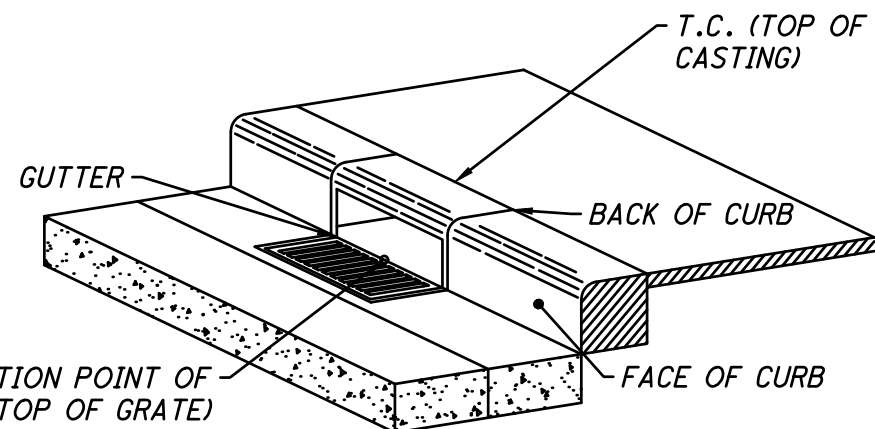


W MAIN STREET AND PRIVATE DRIVE DETAIL  
SCALE: 1" = 10'

GRADING NOTE:

ADD 700.00 TO ALL SPOT ELEVATIONS TO OBTAIN NAVD88 ELEVATIONS.

T.G. (TOP OF GRATE) ELEVATION AND LOCATION FOR ALL CURB AND GUTTER INLETS IS IN REFERENCE TO THE GUTTER ELEVATION



CODED NOTES

- 1 4" CURB
- 2 2" CURB
- 3 6" CURB
- 4 CURB TAPER FROM 6" TO FLUSH
- 5 CURB TAPER FROM 4" TO FLUSH

GRADING LEGEND

- XXX PROPOSED MAJOR CONTOUR
- XXX PROPOSED MINOR CONTOUR
- XXX EXISTING MAJOR CONTOUR
- XXX EXISTING MINOR CONTOUR
- FFE=110.00 FINISHED FLOOR ELEVATION
- ×10.00 SPOT ELEVATION
- ×100.00 TC TOP OF CASTING ELEVATION
- ×100.00 TG TOP OF GUTTER ELEVATION
- ×10.00 HP HIGH POINT ELEVATION
- ×10.00 ME MATCH EXISTING ELEVATION
- XXX SLOPE ARROW
- ATG ADJUST TO GRADE
- CONSTRUCTION LIMIT

INTERSECTION DETAILS

DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

PAT

REVIEWER

JRP 06/06/25

PROJECT ID

SUBSET TOTAL

SHEET TOTAL







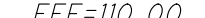






P.27 70

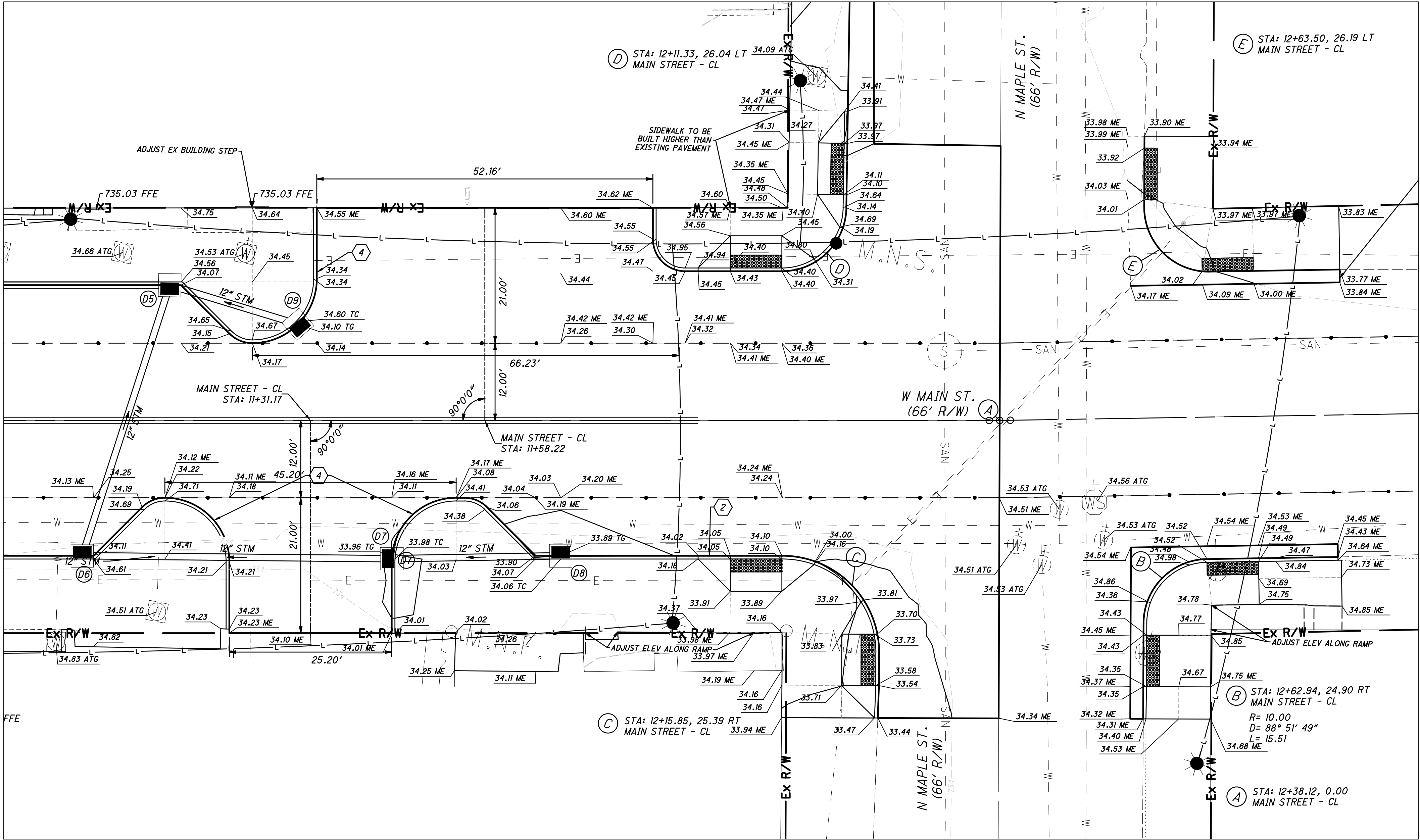


A cross-sectional diagram of a curb and gutter assembly. The gutter is on the left, containing a grate. The curb is on the right. Labels include:
 

- T.C. (TOP OF CASTING) pointing to the top of the curb.
- BACK OF CURB pointing to the rear face of the curb.
- FACE OF CURB pointing to the front face of the curb.
- GUTTER pointing to the channel on the left.
- INSERTION POINT OF CURB INLET = T.G. (TOP OF GRATE) pointing to the bottom of the grate.

1	4" CURB
2	2" CURB
3	6" CURB
4	CURB TAPER FROM 6" TO FLUSH
5	CURB TAPER FROM 4" TO FLUSH

	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	FINISHED FLOOR ELEVATION
	SPOT ELEVATION
	TOP OF CASTING ELEVATION
	TOP OF GUTTER ELEVATION
	HIGH POINT ELEVATION
	MATCH EXISTING ELEVATION
	SLOPE ARROW
	ADJUST TO GRADE
	CONSTRUCTION LIMIT

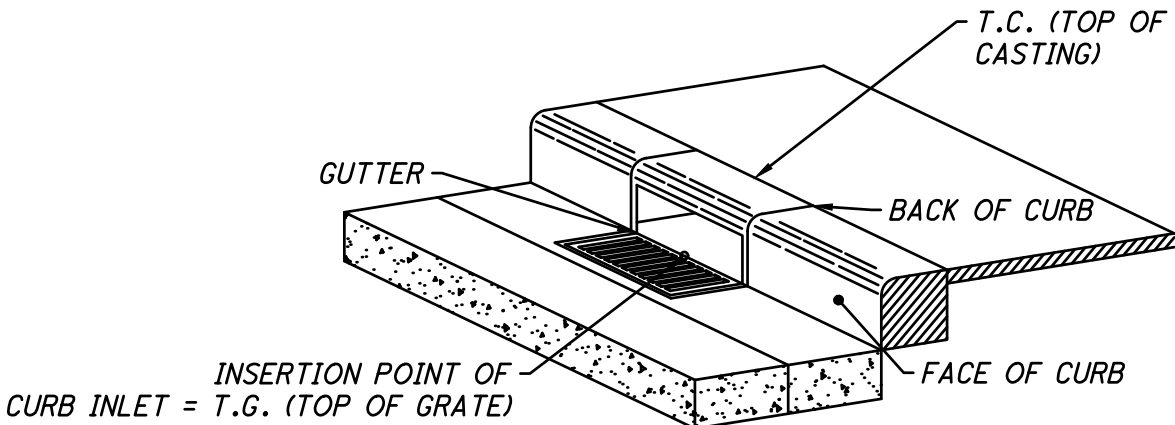


W MAIN STREET AND MAPLE STREET INTERSECTION DETAIL  
SCALE: 1" = 10'

GRADING NOTE:

ADD 700.00 TO ALL SPOT ELEVATIONS TO OBTAIN NAVD88 ELEVATIONS.

T.G. (TOP OF GRATE) ELEVATION AND LOCATION FOR ALL CURB AND GUTTER INLETS IS IN REFERENCE TO THE GUTTER ELEVATION



CODED NOTES

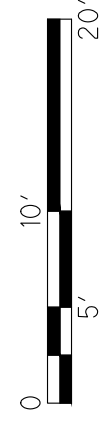
- 1 4" CURB
- 2 2" CURB
- 3 6" CURB
- 4 CURB TAPER FROM 6" TO FLUSH
- 5 CURB TAPER FROM 4" TO FLUSH

GRADING LEGEND

- XXX PROPOSED MAJOR CONTOUR
- XXX PROPOSED MINOR CONTOUR
- XXX EXISTING MAJOR CONTOUR
- XXX EXISTING MINOR CONTOUR
- FFE=110.00 FINISHED FLOOR ELEVATION
- x10.00 SPOT ELEVATION
- x100.00 TC TOP OF CASTING ELEVATION
- x100.00 TG TOP OF GUTTER ELEVATION
- x10.00 HP HIGH POINT ELEVATION
- x10.00 ME MATCH EXISTING ELEVATION
- x.xx% SLOPE ARROW
- ATG ADJUST TO GRADE
- CONSTRUCTION LIMIT

INTERSECTION DETAILS

HORIZONTAL  
SCALE IN FEET



DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

PAT

REVIEWER

JRP 06/06/25

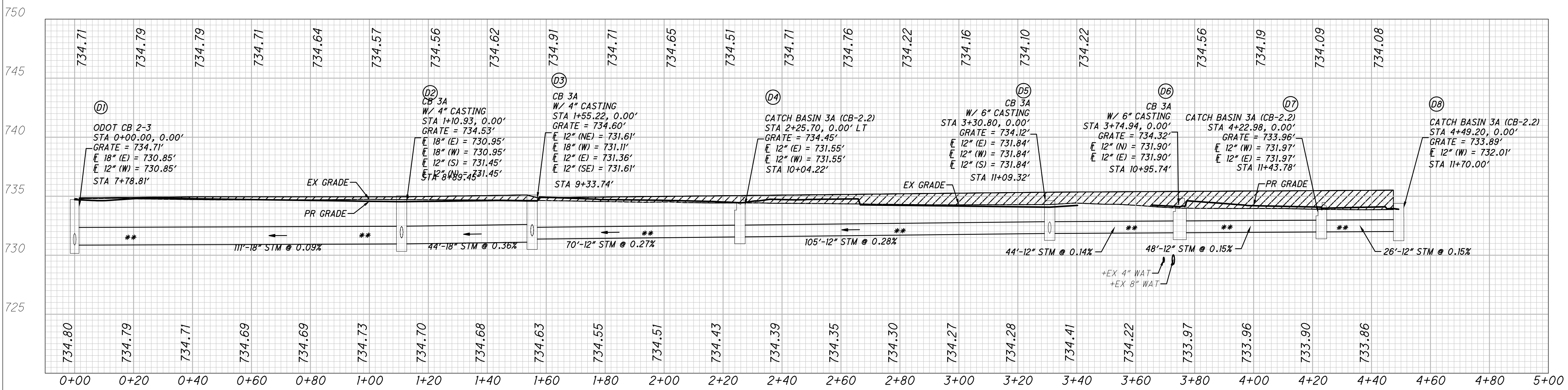
PROJECT ID

SUBSET TOTAL

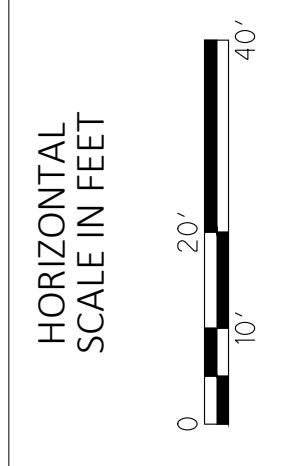
SHEET TOTAL

P.29 70

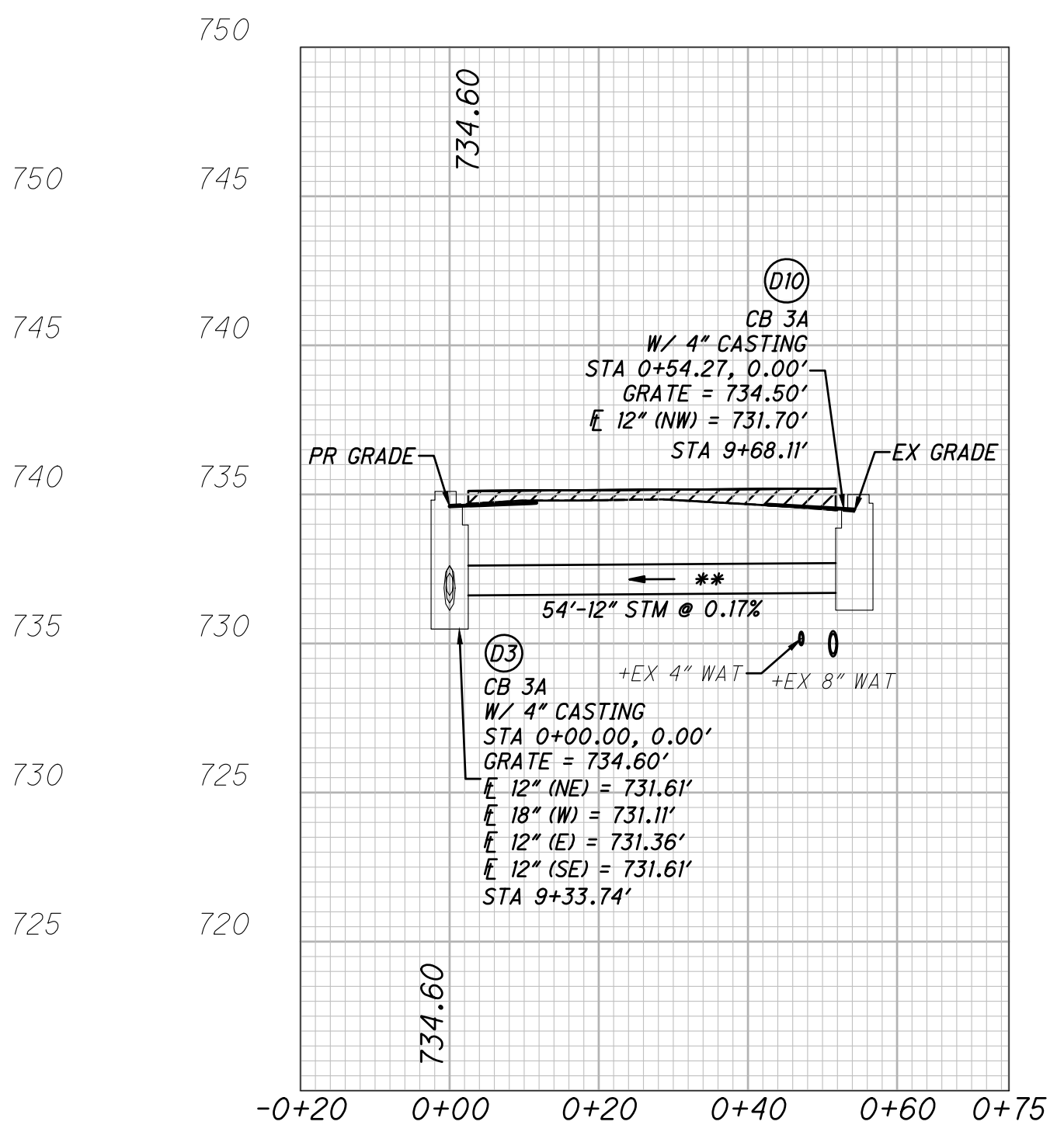
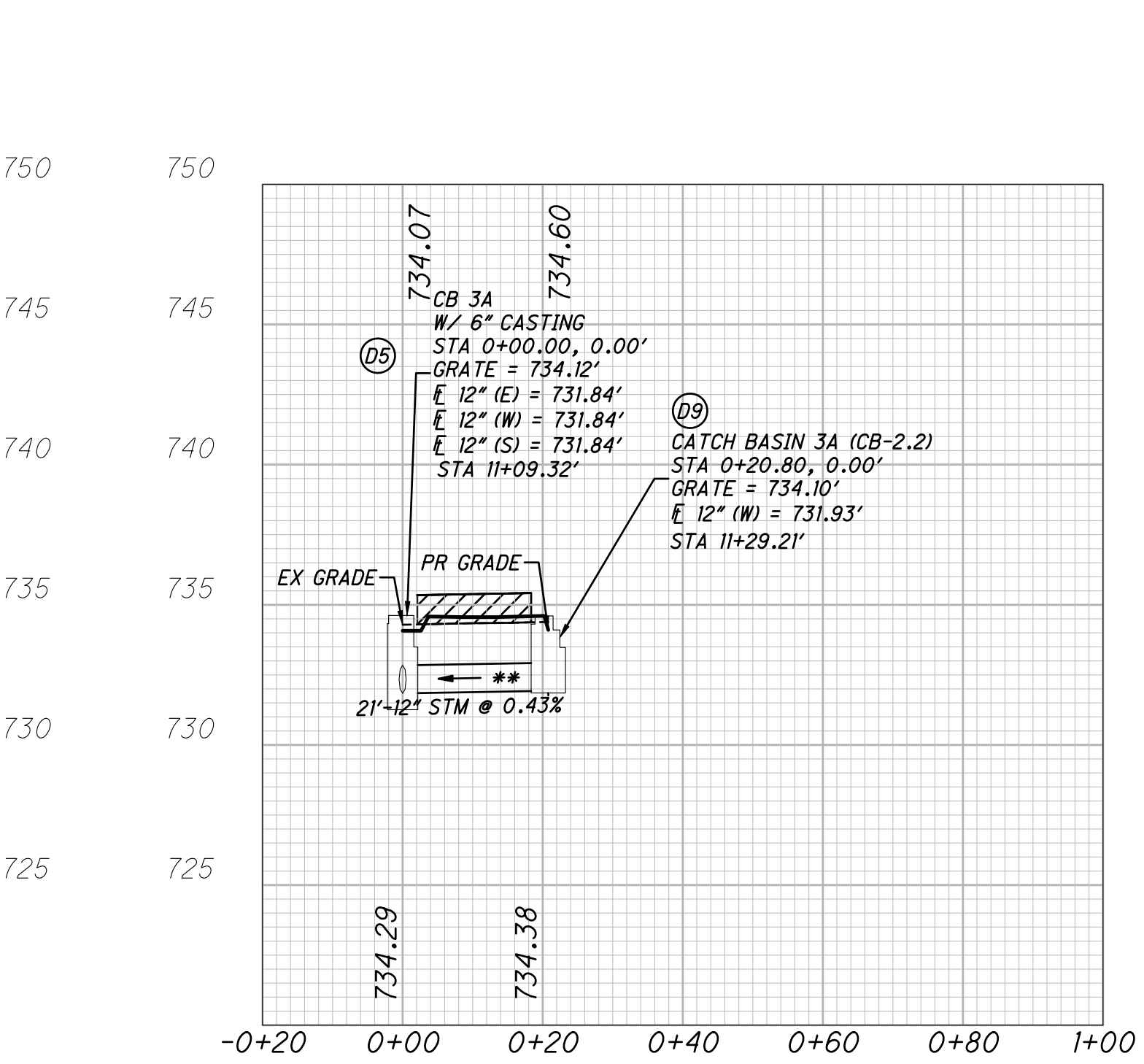
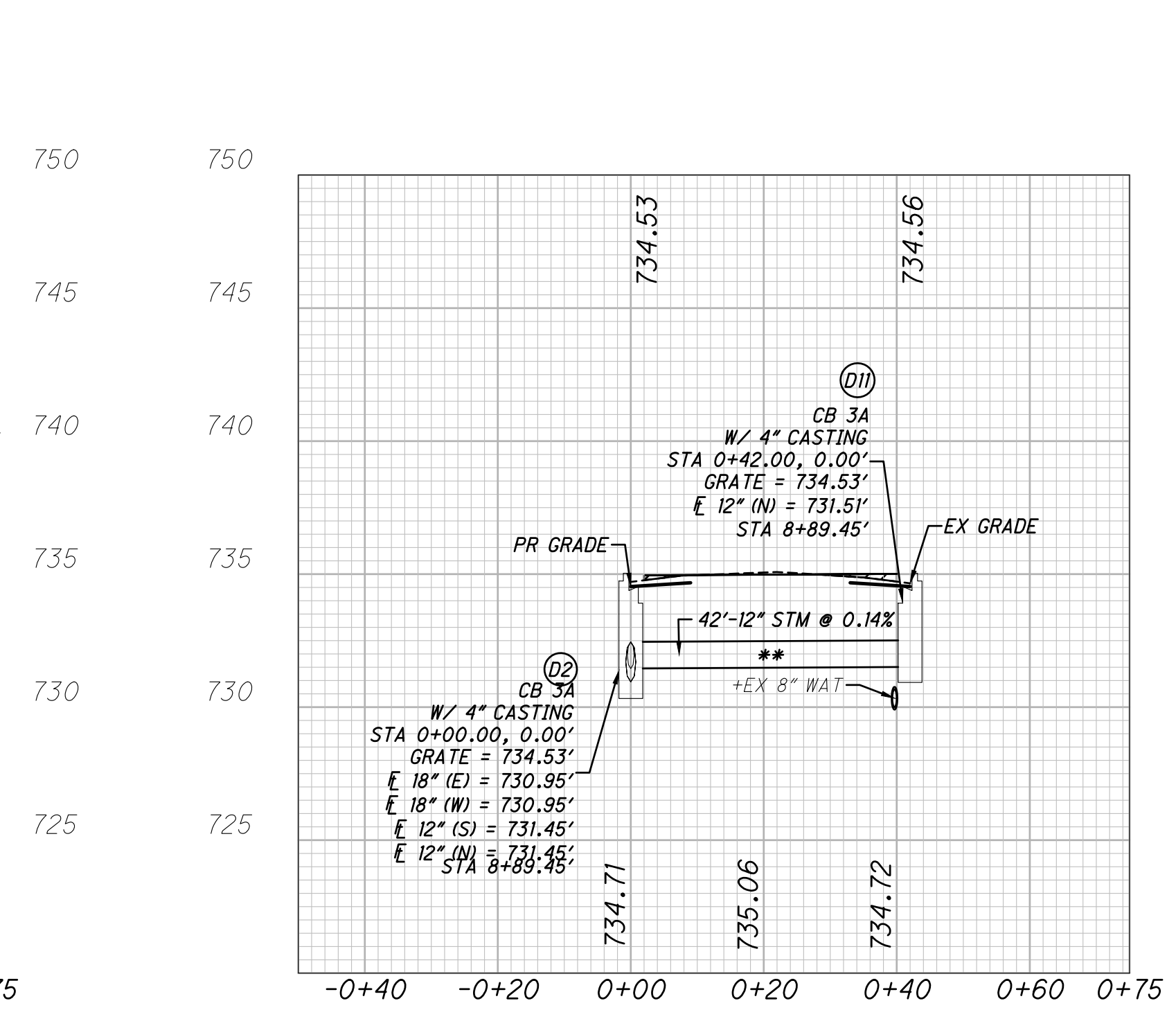
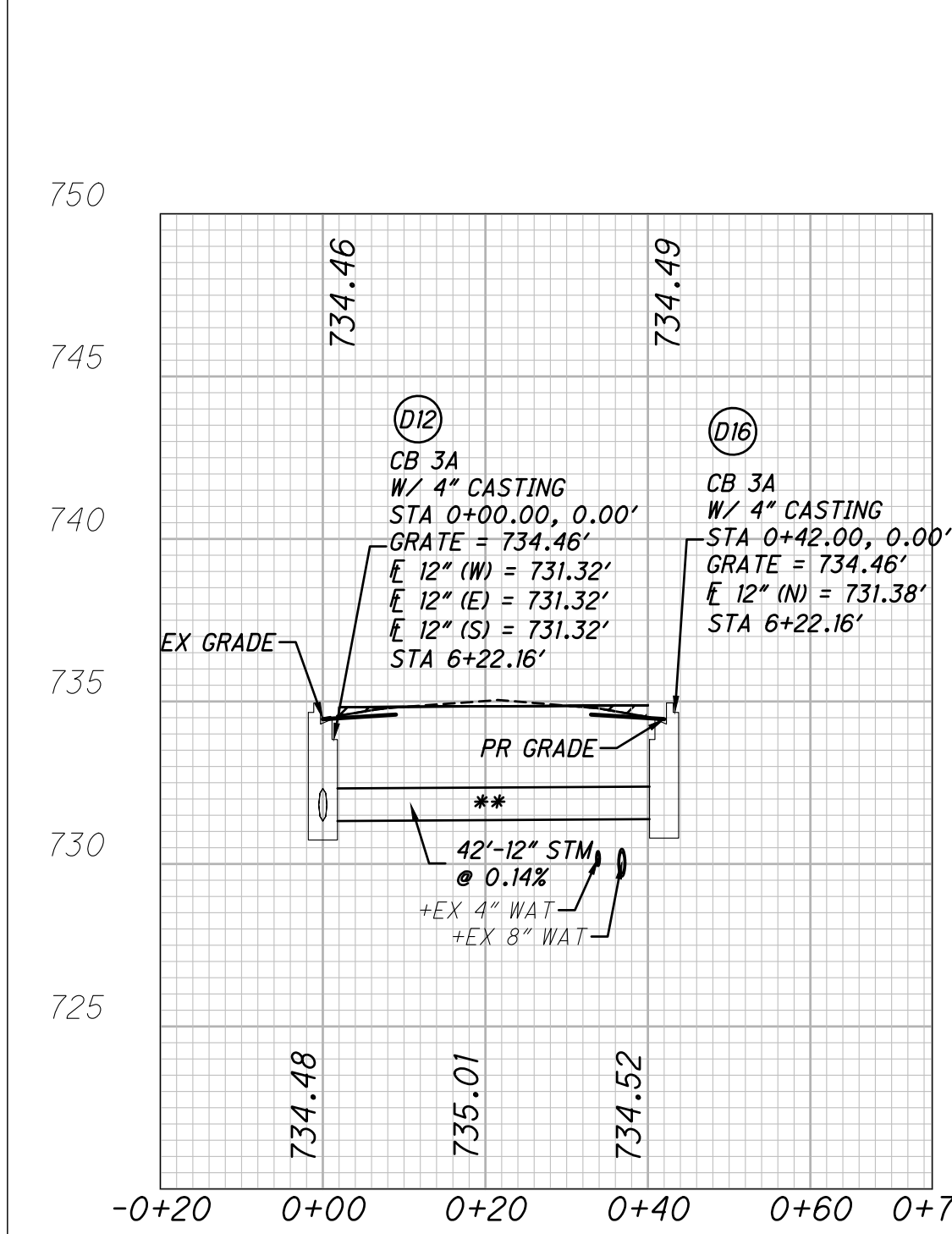
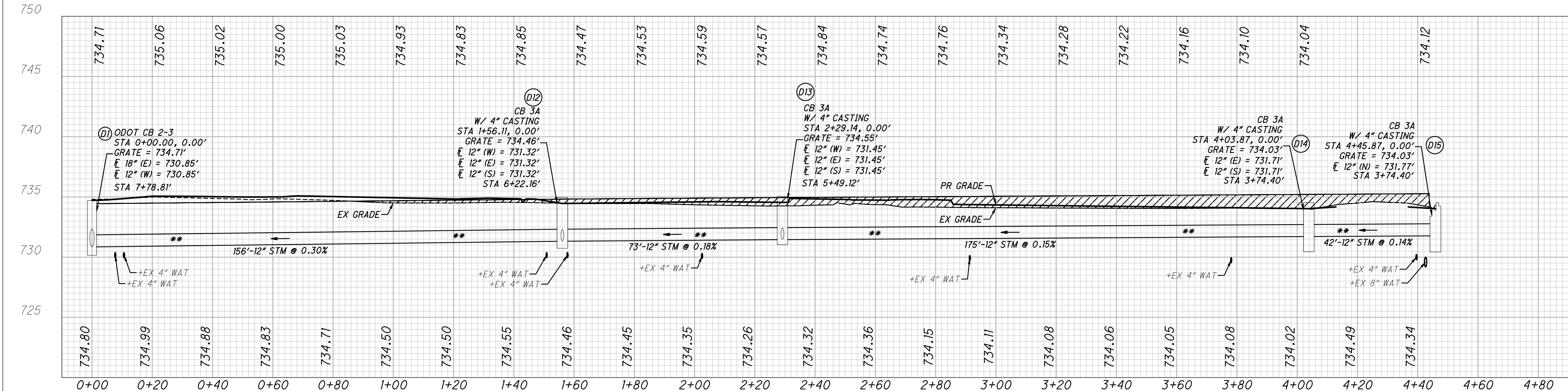




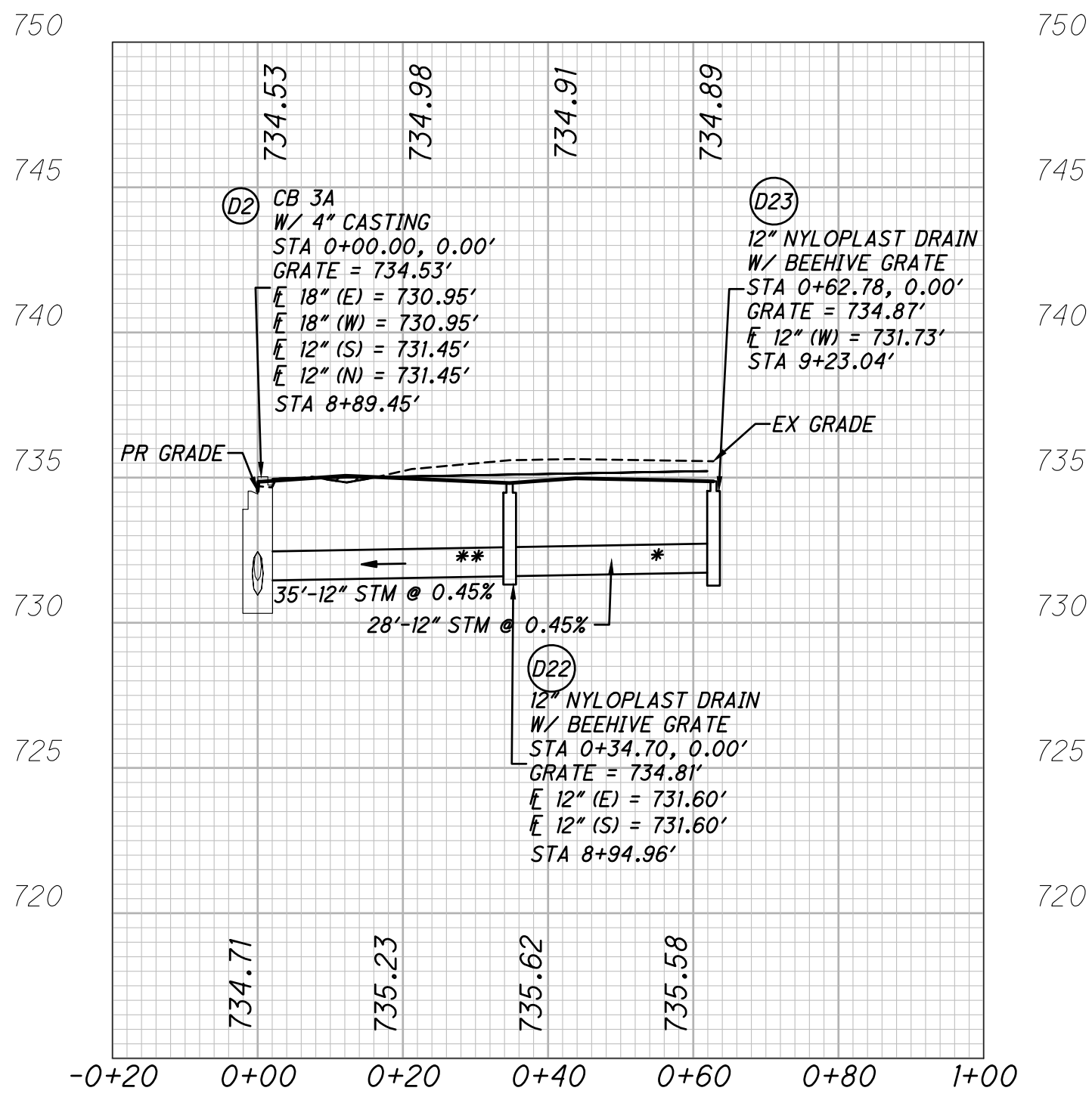
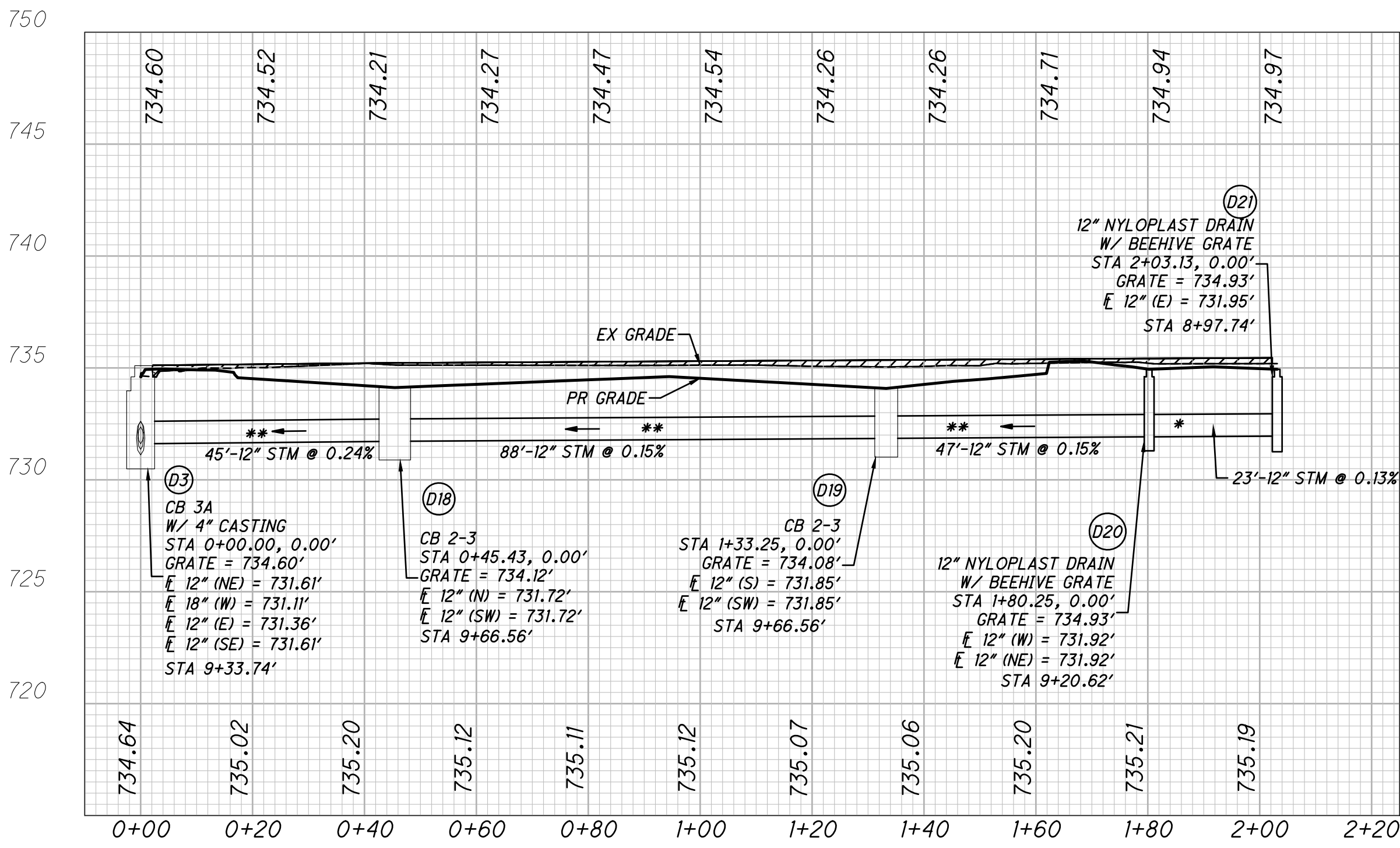
- STORM SEWER PROFILE NOTES:
1. PROFILE VERTICAL DATUM NAVD '88.
  2. ALL STORM STRUCTURES ARE ODOT STANDARD STRUCTURES UNLESS OTHERWISE NOTED.
  3. MAINTAIN A MINIMUM OF 18" VERTICAL AND 10' HORIZONTAL CLEARANCE FROM WATERLINES.
  4. ALL BACKFILL SHALL BE COMPACTED TO THE DENSITY OF THE EXISTING GROUND UNLESS OTHERWISE NOTED:  
\* COMPACTED BACKFILL PER ODOT CMS ITEM 611  
\*\* COMPACTED GRANULAR BACKFILL PER ODOT CMS ITEM 611
  5. ALL FILLS ARE TO BE PLACED A MINIMUM OF 2.5' ABOVE THE PROPOSED STORM SEWER PER ODOT CMS ITEM 203 PRIOR TO THE START OF STORM SEWER CONSTRUCTION. HATCH BELOW FOR REFERENCE.
  6. ALL STORM STRUCTURES WITHIN PAVEMENT LIMITS SHALL HAVE HEAVY DUTY TRAFFIC RATED GRATES.
  7. PIPE RUNS DENOTED WITH A (++) ARE TO HAVE SANITARY GRADE PIPE PER ODOT CMS 611 WITH JOINTS PER ODOT CMS 748.01/748.02.
  8. + ASSUMED ELEVATION. LOCATION PER RECORD PLAN. CONTRACTOR TO FIELD VERIFY.



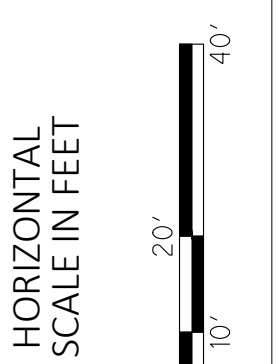
STORM SEWER PROFILES



DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP 06/06/25	
PROJECT ID	
SUBSET	TOTAL
SHEET	TOTAL
P.30	70

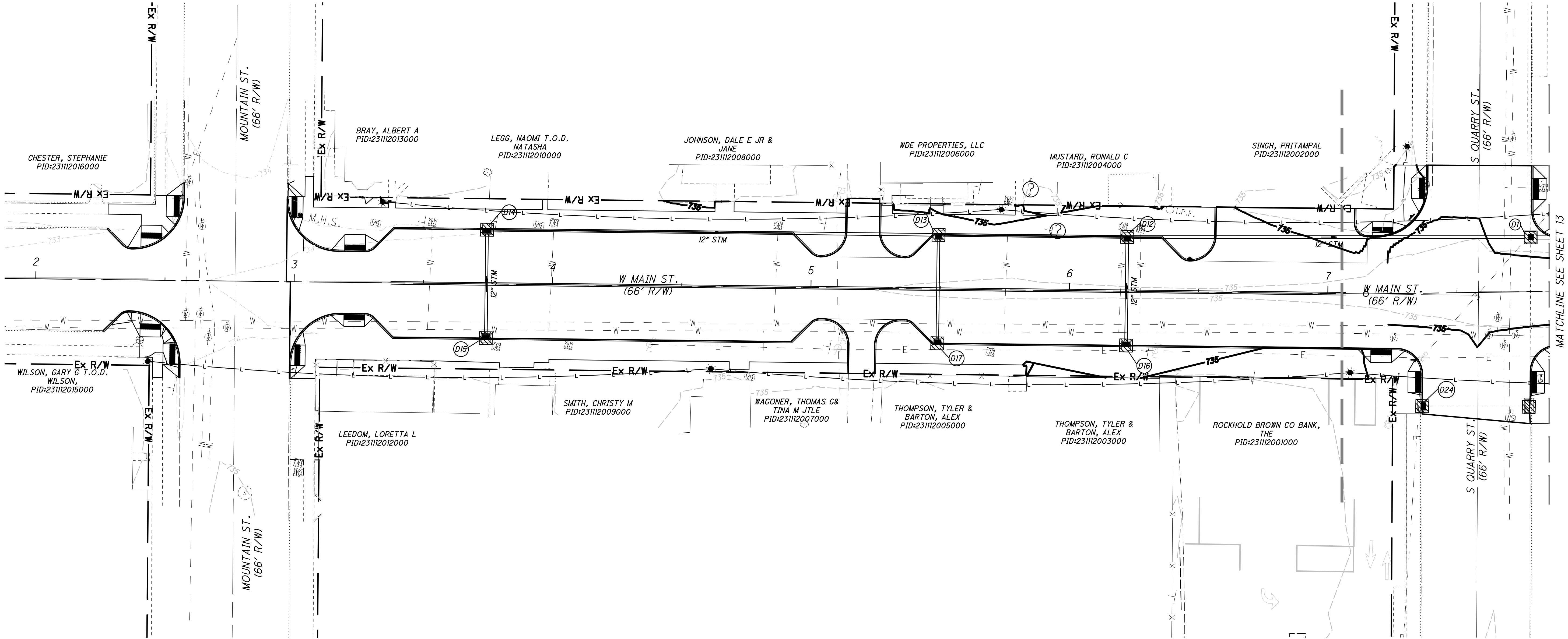


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  8. + ASSUMED ELEVATION. LOCATION PER RECORD PLAN. CONTRACTOR TO FIELD VERIFY.



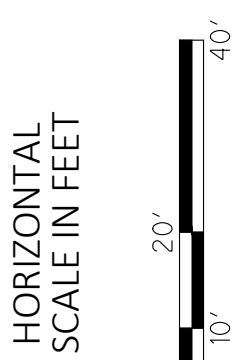
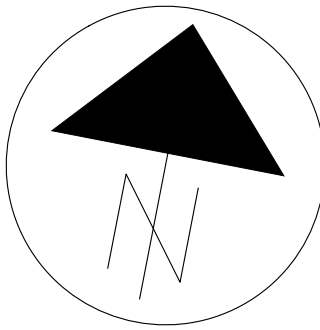
STORM SEWER PROFILES

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP 06/06/25	
PROJECT ID	
SUBSET	TOTAL
SHEET	TOTAL
P.31	70



LEGEND

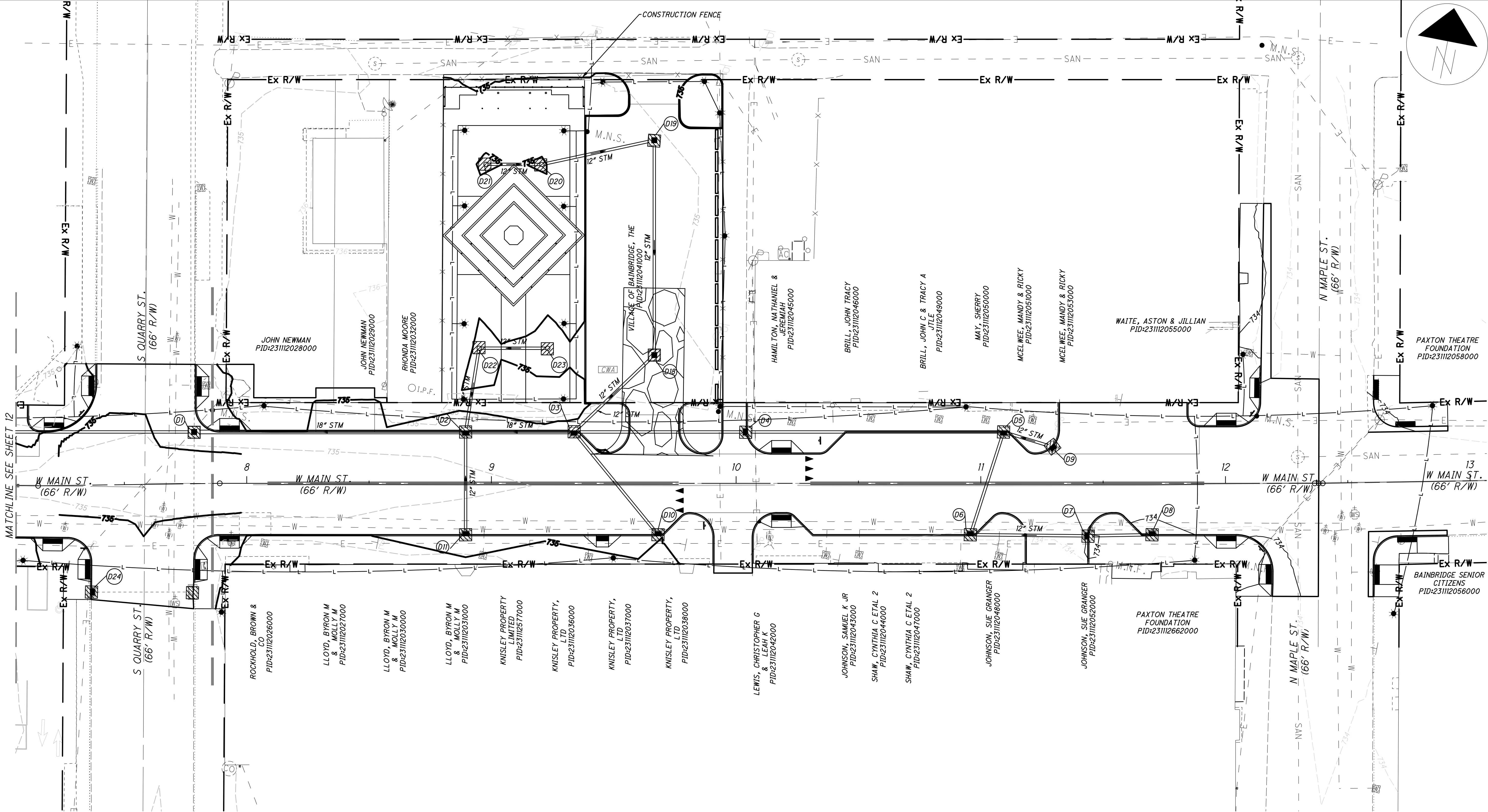
- INLET/CATCH BASIN PROTECTION
- PERIMETER FILTER FABRIC FENCE
- CONSTRUCTION ENTRANCE



EROSION CONTROL PLAN

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP 06/06/25	
PROJECT ID	
SUBSET TOTAL	
SHEET TOTAL	
P.32	70



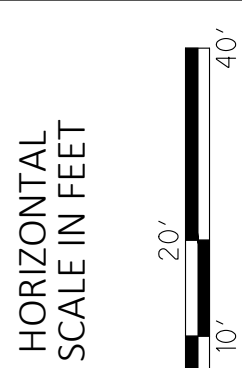


LEGEND

- INLET/CATCH BASIN PROTECTION
- PERIMETER FILTER FABRIC FENCE
- CONSTRUCTION ENTRANCE

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	
PAT	
REVIEWER	
JRP 06/06/25	
PROJECT ID	
SUBSET	TOTAL
SHEET	TOTAL
P.33	70

EROSION CONTROL PLAN



SITE NARRATIVE

PLAN DESIGNER  
AMERICAN STRUCTUREPOINT, INC.  
2550 CORPORATE EXCHANGE DR., SUITE 300  
COLUMBUS, OHIO 43231  
CONTACT: JOEL R. PERRY  
PHONE: (614) 901-2235  
EMAIL: JRPERRY@STRUCTUREPOINT.COM

EXISTING SITE CONDITIONS: EXISTING STREETScape DEVELOPMENT AND PARK

PROJECT DESCRIPTION: ACTIVITIES INCLUDE THE CONSTRUCTION OF STREETScape INCLUDING PLANTERS, SIDEWALK, CURB, CURB RAMPS, PARK, AND ASSOCIATED UTILITIES. APPROXIMATELY 1.28 ACRES OF THE SITE WILL BE DISTURBED. THE EXISTING PROPERTY CONSISTS OF PAVEMENT, BUILDINGS, AND GRASS.

RECEIVING STREAM: THE VILLAGE OF BAINBRIDGE STORM SEWER SYSTEM, EVENTUALLY DRAINING TO PAINT CREEK.

DISTURBED AREA: 1.928 ACRES

SITE BMPS: FINAL LOCATIONS OF ALL SITE BMPS, INCLUDING DUMPSTERS, VEHICLE FUELING AREAS, CONCRETE TRUCK WASH, MATERIAL STORAGE, AND TOPSOIL STOCKPILES SHALL BE DETERMINED BY CONTRACTOR. IF FINAL LOCATION OF BMPS DIFFER FROM THE LOCATIONS SHOWN, CONTRACTOR SHALL MODIFY SWPPP AND INFORM OHIO EPA OF NEW LOCATIONS OF BMPS.

ADJACENT AREAS: EAST: VILLAGE  
NORTH: VILLAGE RESIDENTIAL  
WEST: VILLAGE  
SOUTH: VILLAGE RESIDENTIAL

GRADING REQUIREMENTS: AREAS WILL BE STABILIZED WHEN GRADED TO PREVENT EROSION ON THE SITE.

EROSION & SEDIMENT CONTROL MEASURES: A COMBINATION OF MEASURES WILL BE USED TO PROVIDE EROSION & SEDIMENT CONTROL, INCLUDING SILT FENCE AND SEEDING.

PROVIDE INLET PROTECTION AT ALL NEW AND EXISTING DRAINAGE STRUCTURES.

ANY OFF SITE BORROW OR SPOIL AREAS SHALL BE SUBJECT TO THE REQUIREMENTS SET FORTH BY THE OHIO EPA. ALL EROSION AND SEDIMENT CONTROL MEASURES FOR OFF-SITE AREAS NOT COVERED BY A SEPARATE NOI OR SWPPP SHALL BE COORDINATED WITH THE OHIO EPA.

ALL TRENCH OR EXCAVATION GROUNDWATER CONTAINING SEDIMENT MUST BE EFFECTIVELY TREATED PRIOR TO DISCHARGE INTO THE STORM SEWER SYSTEM.

USE ALL MEANS NECESSARY TO CONTROL DUST ON THE SITE AND PREVENT TRACKING SOIL OFF SITE.

PERMANENT STABILIZATION: THE SITE WILL BE STABILIZED BY THE USE OF SEEDING OR SODDING IN LAWN AREAS.

MAINTENANCE: ALL EROSION CONTROL DEVICES ARE TO BE INSPECTED BY THE CONSTRUCTION SUPERINTENDENT WEEKLY AND AFTER SIGNIFICANT RAINFALLS. ANY DAMAGED FACILITIES ARE TO BE REPLACED OR REPAIRED IMMEDIATELY AS MAY BE NECESSARY.

GENERAL CONSTRUCTION SEQUENCE: (UNLESS NOTED OTHERWISE, ALL EROSION AND SEDIMENT CONTROL MEASURES FROM THE BEGINNING OF EARTH DISTURBING ACTIVITIES TO FINAL COMPLETION OF THE PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR)  
1. ESTABLISH CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT CONSTRUCTION AREA.  
2. CONSTRUCT TEMPORARY SEDIMENT CONTROLS AND PERIMETER EROSION CONTROL MEASURES, INCLUDING SEDIMENT BASINS, TEMPORARY OUTLET STRUCTURE, CONSTRUCTION ENTRANCE, AND SILT FENCE. MEASURES SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING.  
3. CLEAR AND GRUB  
4. STRIP AND STOCKPILE TOPSOIL. SEED STOCKPILES. PROVIDE PERIMETER SILT FENCE AT TOE OF STOCKPILE SLOPE.  
5. PERFORM ROUGH GRADING AND EXCAVATION. STABILIZE AREAS AS INDICATED HEREIN.  
6. INSTALL STORM SEWERS, OUTLET STRUCTURE, AND INLET FILTERS.  
7. COMPLETE ALL PAVEMENT ACTIVITIES.  
8. COMPLETE FINE GRADING OF SEEDED AREAS AND STABILIZE DISTURBED AREAS.  
9. ONCE FINAL SEED HAS BEEN ESTABLISHED, CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES AND CLEAN ALL SEDIMENT FROM STRUCTURES AND PAVEMENT. SEDIMENT/WATER QUALITY BASIN SHALL BE CLEANED OF ALL ACCUMULATED SEDIMENT AND RESTORED TO THE ORIGINAL DESIGN CONTOURS SHOWN ON THESE PLANS.  
10. PRIOR TO FINISHING WORK, ALL AREAS OF THE SITE DISTURBED BY CONSTRUCTION ACTIVITY (INCLUDING, BUT NOT LIMITED TO MATERIAL STORAGE AREAS, TRAILER AREAS, FUELING AREAS, TRUCK WASH AREAS, EQUIPMENT PATHS, HAUL ROADS, ETC.) SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS, OR IF IN AREAS OF PROPOSED IMPROVEMENTS, TO THEIR PROPOSED CONDITIONS. ALL STONE, TRASH, AND DEBRIS SHALL BE REMOVED FROM THE SOIL. THE UPPER 12" OF SOIL SHALL BE SCARIFIED, AND AREA SHALL BE GRADED TO SUBGRADE WITH SUITABLE MATERIALS. FURNISH 6" MINIMUM OF TOPSOIL AND SEED ALL AREAS.

SCHEDULE: THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF OPERATIONS TO THE OWNER. SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE PLACED IN ACCORDANCE WITH THIS SCHEDULE.

JURISDICTION: ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATIONS AT THE DISCRETION OF THE VILLAGE OF BAINBRIDGE AND/OR THE OHIO EPA.

OEPA NOI: PENDING

RUNOFF COEFFICIENTS: PRE-DEVELOPED: C = 90  
POST-DEVELOPED: C = 96  
PRE-DEVELOPED IMPERVIOUS AREA: 1.502 ACRES  
POST-DEVELOPED IMPERVIOUS AREA: 1.798 ACRES

EROSION CONTROL NOTES:

- ALL EROSION CONTROL FACILITIES SHALL BE INSTALLED PRIOR TO ANY SITE GRADING OPERATIONS. ALL APPLICABLE GOVERNING AGENCIES MUST BE NOTIFIED UPON COMPLETION OF THE INSTALLATION OF THE REQUIRED EROSION FACILITIES AND PRIOR TO ANY GRADING OPERATION BEING COMMENCED. IF DAMAGED OR REMOVED DURING CONSTRUCTION, ALL EROSION CONTROL FACILITIES SHALL BE RESTORED AND IN PLACE AT THE END OF EACH WORK DAY.
- ANY EROSION CONTROL FACILITIES DEEMED NECESSARY BY THE GOVERNING AGENCIES; BEFORE, DURING OR AFTER THE GRADING ACTIVITIES, SHALL BE INSTALLED AT THEIR REQUEST.
- FLOW FROM DIVERSION CHANNELS OR PIPES (TEMPORARY OR PERMANENT) SHALL BE ROUTED TO SEDIMENTATION BASINS OR APPROPRIATE ENERGY DISSIPATERS TO PREVENT TRANSPORT OF SEDIMENT TO OUTFLOW TO LATERAL CONVEYORS AND TO PREVENT EROSION AND SEDIMENTATION WHEN RUNOFF FLOWS INTO THESE CONVEYORS.
- SITE ACCESS ROADS SHALL BE GRADED OR OTHERWISE PROTECTED WITH SILT FENCES, DIVERSION CHANNELS, OR DIKES AND PIPES TO PREVENT SEDIMENT FROM EXITING THE SITE VIA THE ACCESS ROADS. SITE-ACCESS ROADS/DRIVEWAYS SHALL BE SURFACED WITH CRUSHED ROCK WHERE THEY ADJOIN EXISTING PAVED ROADWAYS.
- SOILS TRACKED FROM THE SITE BY MOTOR VEHICLES OR EQUIPMENT SHALL BE CLEANED DAILY FROM PAVED ROADWAY SURFACES, OR MORE FREQUENTLY IF REQUESTED BY GOVERNING AGENCIES, THROUGHOUT THE DURATION OF CONSTRUCTION.
- DUST CONTROL MEASURES SHALL BE PERFORMED PERIODICALLY WHEN CONDITIONS REQUIRE AND/OR AS DIRECTED BY THE GOVERNING AGENCIES.
- ALL EROSION CONTROL MEASURES SHALL BE USED AND MAINTAINED FOR THE DURATION OF SITE CONSTRUCTION. IF CONSTRUCTION OPERATIONS OR NATURAL EVENTS DAMAGE OR INTERFERE WITH THESE EROSION CONTROL MEASURES, THEY SHALL BE RESTORED TO SERVE THEIR INTENDED FUNCTION AT THE END OF EACH DAY OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED AS SOON AS POSSIBLE. ANY AREAS WHICH HAVE BEEN FINISHED GRADED SHALL BE SODDED. AREAS THAT HAVE BEEN DISTURBED AND FOR WHICH GRADING OR SITE BUILDING CONSTRUCTION OPERATIONS ARE NOT ACTIVELY UNDERWAY SHALL BE TEMPORARILY SEEDED AND MULCHED AS REQUIRED BY GOVERNING AGENCIES.
- RUNOFF SHALL BE PREVENTED FROM ENTERING ALL STORM SEWER CATCH BASINS PROVIDING THEY ARE NOT NEEDED DURING CONSTRUCTION. WHERE STORM SEWER CATCH BASINS ARE NECESSARY FOR SITE DRAINAGE DURING CONSTRUCTION, A SILT FENCE OR SEDIMENT PROTECTION DEVICES SHALL BE INSTALLED AND MAINTAINED AROUND ALL CATCH BASINS UNTIL THE TRIBUTARY AREA TO THE CATCH BASIN IS RESTORED.
- EROSION CONTROL FACILITIES SHALL BE INSTALLED AND MAINTAINED AROUND THE PERIMETER OF ALL LAKES, PONDS, AND WETLANDS, IF ANY WITHIN OR ADJACENT TO THE AREA TO BE GRADED UNTIL THE AREA TRIBUTARY TO THE LAKE, POND, OR WETLAND IS RESTORED.
- TO MINIMIZE EROSION, ALL 3:1 SLOPES OR GREATER SHALL BE COVERED WITH A TEMPORARY EROSION CONTROL BLANKET OR STAKED SOD.
- ACCUMULATION OF ALL SEDIMENT OCCURRING IN STORM SEWERS, DITCHES, LAKES, PONDS, WETLANDS SHALL BE REMOVED PRIOR TO, DURING AND AFTER COMPLETION OF GRADING ACTIVITIES, AT NO ADDITIONAL COST TO OWNER.
- EROSION CONTROL ITEMS AND DEVICES SHALL BE REMOVED ONLY AFTER THE AREA HAS RECEIVED FINAL STABILIZATION.

POST CONSTRUCTION STORM WATER QUALITY MANAGEMENT - DETENTION BASIN NOTES:

THE DETENTION BASIN WILL ACT AS A STORM WATER QUALITY BASIN. THE BASIN WAS SIZED TO TREAT WATER QUALITY VOLUME IN ADDITION TO PROVIDING STORM WATER DETENTION. AN ADDITIONAL 20% OF VOLUME WAS PROVIDED FOR SEDIMENT LOADING. THE WATER QUALITY VOLUME WILL DRAIN THROUGH A SMALL DIAMETER ORIFICE ON THE OUTLET STRUCTURE.

- GENERAL MAINTENANCE: INSPECT BASIN AND OUTLET STRUCTURE ONCE PER MONTH OR AFTER RAINFALL EVENTS OF 0.5 INCHES OR GREATER. MAINTAIN DOCUMENTATION OF ALL INSPECTIONS AND MAINTENANCE.
- BASIN MAINTENANCE: EXCAVATE AND DISPOSE SEDIMENT OFF-SITE IN ACCORDANCE WITH LOCAL STANDARDS WHEN BASIN HAS ACCUMULATED 3 INCHES OF SEDIMENT. SEDIMENT SHALL BE REMOVED FROM THE FOREBAY AND MICROPOOL OF THE BASIN. ONCE SITE HAS BEEN STABILIZED, CLEAN OUT ALL SEDIMENT CONTAINED IN THE FOREBAY AND MICROPOOL. ALL SEDIMENT REMOVAL THEREAFTER SHALL BE LESS FREQUENT AND SHALL OCCUR WHEN BASIN FUNCTIONALITY HAS DECREASED OR ACCUMULATION HAS EXCEEDED 3 INCHES.
- OUTLET STRUCTURE MAINTENANCE: REMOVE FLUSHED DEBRIS AND SEDIMENT FROM OUTLET STRUCTURE WITH VACUUM TRUCK MINIMUM OF ONCE EVERY SIX MONTHS OR WHEN SEDIMENT ACCUMULATES TO WITHIN 6 INCHES OF OUTLET, OF IF STANDING WATER PERSISTS FOR MORE THAN 72 HOURS.

SEDIMENT AND EROSION CONTROL NOTES:

MAINTENANCE & INSPECTION PROCEDURES: ALL CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EACH WEEK AND WITHIN 24 HOURS FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SEDIMENTATION AND EROSION CONTROL FEATURES ON THIS PROJECT. ANY SEDIMENT OR DEBRIS WHICH REDUCES THE EFFICIENCY OF A CONTROL FEATURE SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE AT NO ADDITIONAL COST TO THE OWNER AND IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.

TEMPORARY SEEDING AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

A MAINTENANCE INSPECTION REPORT SHALL BE MADE AFTER EACH INSPECTION, AND A WRITTEN LOG MUST BE KEPT. THIS LOG SHALL INDICATE THE DATE OF THE INSPECTION, NAME OF THE INSPECTOR, WEATHER CONDITIONS, OBSERVATIONS, ANY CORRECTIVE ACTIONS TAKEN, AND BE SIGNED IN ACCORDANCE WITH THE CONDITIONS OF THE NPDES PERMIT. ANY CONTROL MEASURE MUST BE REPAIRED/REPLACED WITHIN THREE DAYS OF INSPECTION.

PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES SHALL BE TRAINED IN ALL INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER. A WRITTEN DOCUMENT CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE IMPLEMENTATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES MUST BE MAINTAINED AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE PLAN. THE DOCUMENT SHALL BE CREATED BY THE CONTRACTOR SIGNED PRIOR TO THE START OF CONSTRUCTION.

DISPOSAL OF SOLID/SANITARY/TOXIC WASTE: SOLID, SANITARY, AND TOXIC WASTE MUST BE DISPOSED OF IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS

IT IS PROHIBITED TO BURN, BURY, OR POUR OUT ONTO THE GROUND OR INTO A STORM SEWER WATER CONVEYANCE ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS, AND OTHER SUCH SOLID AND HAZARDOUS WASTES.

ANY RINSE WATERS OF SUCH MATERIAL ARE ALSO PROHIBITED FROM BEING PLACED WHERE THEY MAY ENTER DRAINAGEWAYS.

WASH OUT OF CEMENT TRUCKS SHOULD OCCUR IN A DIKED, DESIGNATED AREA, AWAY FROM ANY CONVEYANCE CHANNEL.

COORDINATE WASH OUT AREA WITH CONSTRUCTION MANAGER.

CONTRACTORS RESPONSIBILITIES: THIS PLAN MUST BE POSTED ON-SITE. A COPY OF THE SWPPP PLAN AND THE APPROVED EPA STORMWATER PERMIT (WITH THE SITE-SPECIFIC NOI NUMBER) SHALL BE KEPT ON-SITE AT ALL TIMES.

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 ODNr 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 ACTIVITIES.

THE CONTRACTOR SHALL PROVIDE A SCHEDULE OF OPERATIONS TO THE OWNER. THE SCHEDULE SHOULD INCLUDE A SEQUENCE OF THE PLACEMENT OF THE SEDIMENTATION AND EROSION CONTROL MEASURES THAT PROVIDES FOR CONTINUAL PROTECTION OF THE SITE THROUGHOUT EARTH MOVING ACTIVITIES.

PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE MADE BY THE ENGINEER AND/OR THE OHIO EPA.

THE CONTRACTOR SHALL PLACE INLET PROTECTION FOR THE SEDIMENTATION CONTROL IMMEDIATELY AFTER CONSTRUCTION OF THE CATCH BASINS OR INLETS WHICH ARE NOT TRIBUTARY TO A SEDIMENT BASIN OR DAM.

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 GRADING OR DURING ANY INCLEMENT WEATHER.

THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT OFFSITE TRACKING OF SEDIMENTS BY VEHICLES AND EQUIPMENT IS MINIMIZED. ALL SUCH OFFSITE SEDIMENT SHALL BE CLEANED UP DAILY.

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 OFFSITE WITHOUT BEING DIRECTED THROUGH A CONTROL PRACTICE.

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE INTO OR ALONG SIDE RIVERS, STREAMS, CREEKS, NATURAL OR MAN-MADE CHANNELS OR SWALES LEADING THERETO. CONCRETE WASH WATER AND SURPLUS CONCRETE SHALL BE CONFINED TO APPROVED AREAS. AFTER SOLIDIFYING THESE WASTED MATERIALS SHALL BE REMOVED FROM THE SITE.

POST FLOOD EVENT SITE MAINTENANCE:

FOLLOWING A FLOOD EVENT, INSPECT ALL MECHANICAL EQUIPMENT THAT ARE LOCATED ON THE SITE FOR ANY DAMAGES. WALLS AND WALL PENETRATIONS SHALL ALSO BE CHECKED FOR CRACKS AND LEAKS AND REPAIRED AS NECESSARY. ALL DEBRIS THAT MAY HAVE ACCUMULATED ALONG THE SITE SHALL BE GATHERED AND DISPOSED OF ACCORDING TO CITY STANDARDS. CHECK AND ENSURE THAT ALL DRAINAGE STRUCTURES ARE IN STANDARD OPERATION AND REPAIR ANY DAMAGES OR CLOGS THAT MAY HAVE OCCURRED DURING FLOODING.

STABILIZATION PROCEDURES

CONTRACTOR SHALL BE RESPONSIBLE TO KEEP A RECORD OF DATES WHEN MAJOR GRADING ACTIVITIES OCCUR, WHEN EARTH DISTURBANCE HAS TEMPORARILY OR PERMANENTLY CEASED ON A PORTION OF THE SITE, AND WHEN STABILIZATION MEASURES HAVE BEEN INITIATED. 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.

TEMPORARY STABILIZATION TOPSOIL STOCKPILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY CEASES FOR AT LEAST 14 DAYS WILL BE STABILIZED WITH TEMPORARY SEED AND MULCH NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. DISTURBED AREAS WITHIN 50 FEET OF A STREAM, FIRST ORDER OR LARGER, SHALL BE STABILIZED WITHIN 2 DAYS OF INACTIVITY. TEMPORARY STABILIZATION MUST BE APPLIED TO ANY AREA OF THE SITE WHICH WILL REMAIN IDLE OVER THE WINTER. THE TEMPORARY SEED SHALL BE RYE (GRASS) APPLIED AT A RATE OF 25 LBS PER 1000 SY. PRIOR TO SEEDING, 900 LBS OF GROUND AGRICULTURAL LIMESTONE AND 200 LBS OF 10-20-20 FERTILIZER SHALL BE APPLIED TO EVERY 1000 SY STABILIZED. IMMEDIATELY AFTER ANY GIVEN AREA IS SEEDED, STRAW OR HAY SHALL BE EVENLY PLACED OVER ALL SEEDED AREAS. TWO TONS PER ACRE FOR STRAW, OR 3 TONS PER ACRE FOR HAY SHALL BE PLACED WHEN SEEDING IS PREFORMED BETWEEN THE DATES OF MARCH 15 AND OCTOBER 15. THREE TONS PER ACRE STRAW, OR 4.5 TONS PER ACRE FOR HAY, SHALL BE PLACED WHEN SEEDING IS PREFORMED BETWEEN THE DATES OF OCTOBER 15 AND MARCH 15 OF THE SUCCEEDING YEAR. IF DORMANT SEEDING IS BEING USED FOR STABILIZATION, SEED SHALL BE PLANTED AFTER NOVEMBER 20. AREAS TO BE PAVED SHALL BE TEMPORARILY STABILIZED BY APPLYING STONE BASE UNTIL BITUMINOUS PAVEMENT CAN BE APPLIED.

IN ADDITION TO TEMPORARY SEEDING, THE CONTRACTOR SHALL PLACE A FILTER FABRIC BARRIER AROUND THE BASE OF ALL SOIL STOCKPILES.

PERMANENT STABILIZATION DISTURBED PORTIONS OF THE SITE WHEN CONSTRUCTION HAS COMPLETED, OR PORTIONS THAT WILL REMAIN DORMANT FOR LONGER THAN ONE YEAR, SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 7 DAYS AFTER FINAL GRADE HAS BEEN ESTABLISHED. THE PERMANENT SEED MIX SHALL CONSIST OF 260 LBS/ACRE OF TURF TYPE TALL FESCUE. PRIOR TO SEEDING, APPLY COMMERCIAL FERTILIZER AT THE RATE OF 1 LB ACTUAL NITROGEN PER 1000 SF. FERTILIZER TO HAVE 20-22-14 ANALYSIS. AFTER SEEDING, EACH AREA SHALL BE MULCHED USING TURFIBER (OR EQUIVALENT) AT A RATE OF 2000 LBS PER ACRE WITH 50 LBS OF TURFIBER ADDED PER 100 GALLONS OF MACHINE CAPACITY. KEEP HYDROMULCH FROM NON-TARGET AREAS INCLUDING PAVEMENT, PLANT MATERIALS, CURBING, AND STRUCTURES. IF THESE SURFACES ARE HIT DURING HYDROMULCHING OPERATIONS, WASH THE SURFACE IMMEDIATELY.

IF SEASONAL CONDITIONS PROHIBIT THE ESTABLISHMENT OF VEGETATIVE COVER, OTHER METHODS OF STABILIZATION, SUCH AS MULCHING WITH A TACKIFIER OR MATTING, MUST BE EMPLOYED AND MAINTAINED UNTIL A MORE PERMANENT METHOD CAN BE IMPLEMENTED.

HORIZONTAL  
SCALE IN FEET

EROSION CONTROL NOTES

TEMPORARY SEEDING			
SEEDING DATES	SPECIES	LB/1,000 SF	PER ACRE
MARCH 1 TO AUGUST 15	OATS	3	4 BUSHEL
	TALL FESCUE	1	40 LB
	ANNUAL RYEGRASS	1	40 LB
	PERENNIAL RYEGRASS	1	40 LB
	TALL FESCUE	1	40 LB
AUGUST 16 TO NOVEMBER 1	RY	3	2 BUSHEL
	TALL FESCUE	1	40 LB
	ANNUAL RYEGRASS	1	40 LB
	WHEAT	3	2 BUSHEL
	TALL FESCUE	1	40 LB
NOVEMBER 1 TO SPRING SEEDING	ANNUAL RYEGRASS	1	40 LB
	PERENNIAL RYEGRASS	1	40 LB
	TALL FESCUE	1	40 LB
	ANNUAL RYEGRASS	1	40 LB
	ANNUAL RYEGRASS	1	40 LB
NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED			

DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

PAT

REVIEWER

JRP 06/06/25

PROJECT ID

SUBSET TOTAL

SHEET TOTAL  
P.34 70



SPILL PREVENTION

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING:

1. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
2. ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
3. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
4. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
5. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
6. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
7. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

HAZARDOUS PRODUCTS:

1. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
2. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
3. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

1. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
3. THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
4. SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST, KITTY LITTER, OR OTHER ABSORBENT MATERIAL AND DISPOSED OF WITH TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE. SPILLS OF 25 OR MORE GALLONS OF PETROLEUM WASTE MUST BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE SPILL. ALL SPILLS, WHICH RESULT IN CONTACT WITH WATERS OF THE STATE, MUST BE REPORTED TO THE OHIO EPA'S HOTLINE.
5. SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS MUST BE TREATED/DISPOSED AT AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDF).
6. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
7. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

PRODUCT SPECIFIC PRACTICES

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FUEL STORAGE TANKS SHALL BE LOCATED AWAY FROM SURFACE WATERS AND STORM SEWER SYSTEM INLETS. FUEL TANKS SHALL BE STORED IN A DIKED AREA CAPABLE OF HOLDING 150% OF THE TANK CAPACITY.

FERTILIZERS

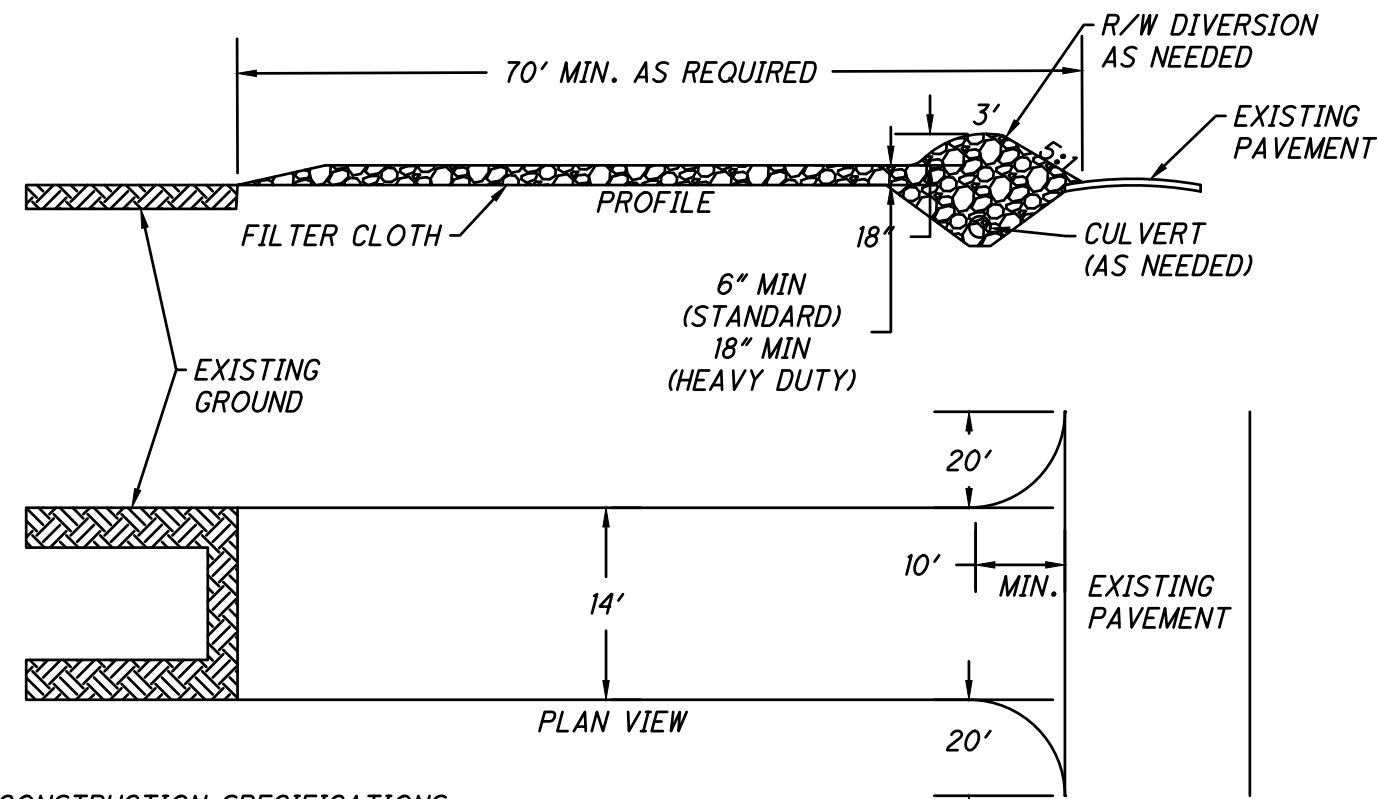
FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE WASH WATER/WASH OUTS

CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED. FOR SMALL PROJECTS, TRUCK CHUTES MAY BE RINSED ON THE LOT AWAY FROM ANY WATER CONVEYANCES.

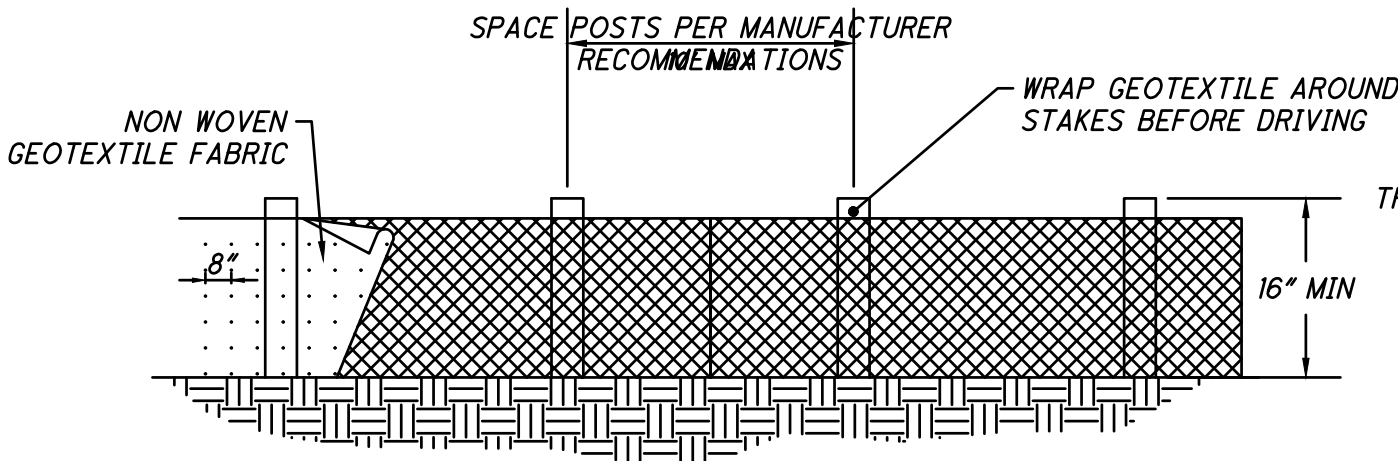


CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - 1/2" ODOT # 2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - 1/2" THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).
3. THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.
4. WIDTH - THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS
5. GEOTEXTILE - A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE	
MINIMUM TENSILE STRENGTH	200 lbs
MINIMUM PUNCTURE STRENGTH	80 psi
MINIMUM TEAR STRENGTH	50 lbs
MINIMUM BURST STRENGTH	320 psi
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS<0.6 mm
PERMITIVITY	1x10 <sup>-3</sup> cm/sec

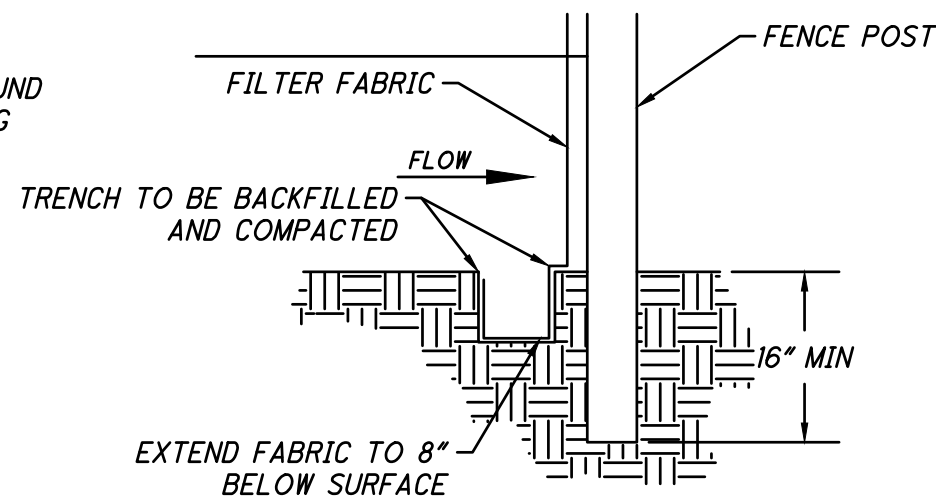
A CONSTRUCTION ENTRANCE  
NOT TO SCALE



NOTES:

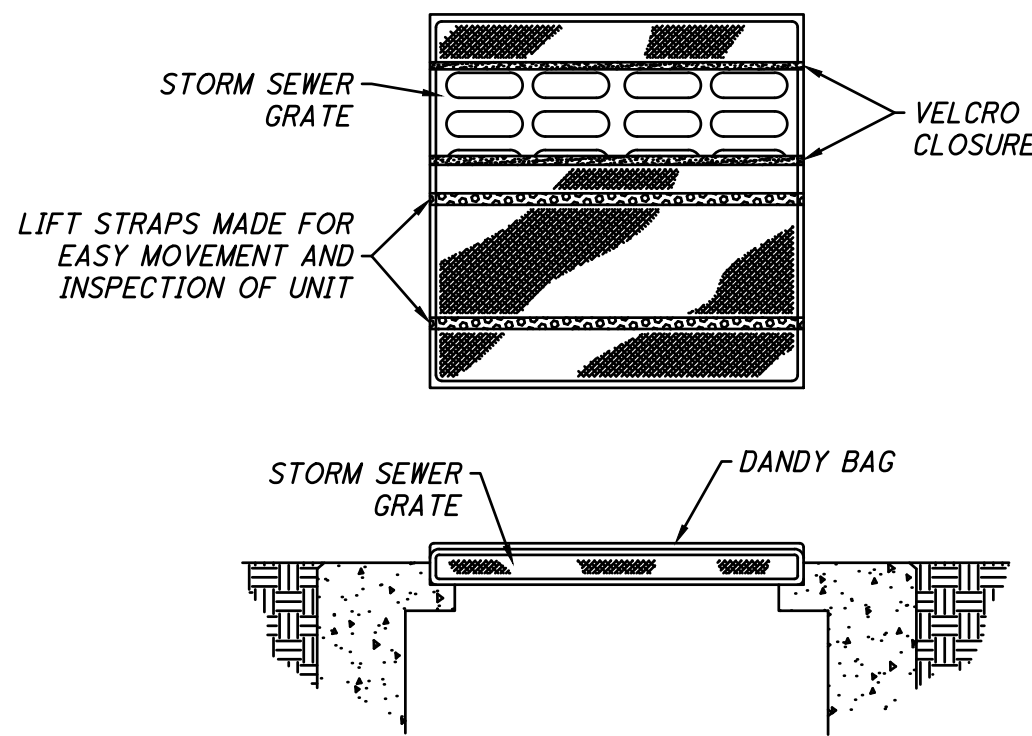
1. FENCE POST SHALL BE A MINIMUM LENGTH OF 32 INCHES LONG PLUS BURIAL DEPTH, COMPOSED OF NOMINAL DIMENSIONED 2x2 INCH HARDWOOD OF SOUND QUALITY. ALTERNATELY POST MATERIAL SHALL BE STEEL OR SYNTHETIC AND SHALL BE OF SUFFICIENT STRENGTH TO RESIST DAMAGE DURING INSTALLATION, TO SUPPORT APPLIED LOADS, AND SO THE GEOTEXTILE CAN BE ADEQUATELY SECURED TO POST
2. FABRIC SHALL BE A NEEDLE PUNCHED NON-WOVEN GEOTEXTILE FABRIC CONSISTING OF STRONG, ROT RESISTANT, MATERIALS RESISTANT TO DETERIORATION FROM ULTRAVIOLET AND HEAT EXPOSURE.
3. MINIMUM 8" FABRIC BURY REQUIRED.
4. ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
5. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

C SILT FENCE  
NOT TO SCALE



6. SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
7. SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY HALF THE HEIGHT OF THE SILT FENCE.

MINIMUM CRITERIA FOR SILT FENCE FABRIC (ODOT, 2002)		
MINIMUM TENSILE STRENGTH	120 lbs (535 N)	ASTM D 4632
MAXIMUM ELONGATION AT 60 LBS	50%	ASTM D 4632
MINIMUM PUNCTURE STRENGTH	50 lbs (220 N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 lbs (180 N)	ASTM D 4533
APPARENT OPENING SIZE	≤ 0.84 mm	ASTM D 4751
MINIMUM PERMITIVITY	1x10 <sup>-2</sup> sec. <sup>-1</sup>	ASTM D 4491
UV EXPOSURE STRENGTH RETENTION	70%	ASTM D 4355



INSTALLATION:

1. STAND GRATE ON END. PLACE DANDY BAG OVER GRATE.
2. FLIP GRATE OVER SO THAT OPEN END IS UP. PULL UP SLACK. TUCK FLAP IN. BE SURE END OF GRATE IS COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT FIT PROPERLY.
3. HOLDING HANDLES, CAREFULLY PLACE DANDY BAG WITH THE GRATE INSERTED INTO CATCH BASIN FRAME SO THAT RED DOT ON THE TOP OF THE DANDY BAG IS VISIBLE.

MAINTENANCE:

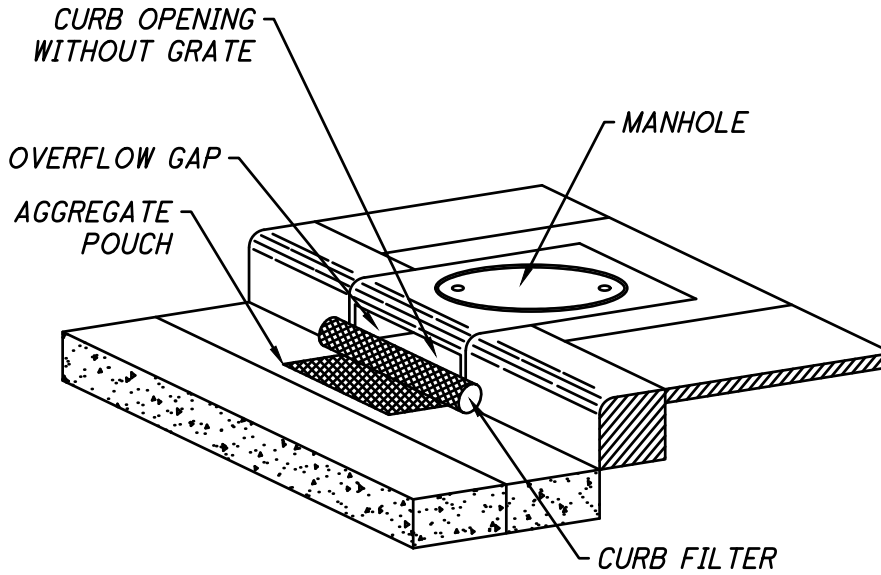
AFTER EACH STORM EVENT AND SILT HAS DRIED, REMOVE ACCUMULATED DEBRIS FROM THE SURFACE OF DANDY BAG WITH BROOM.

NOTE:

PROVIDE FOR INLETS LOCATED IN PAVEMENT

DANDY BAG WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT THAT MEETS OR EXCEEDS THE FOLLOWING SPEFICATIONS	
GRAB TENSILE STRENGTH	ASTM D 4632
GRAB TENSILE ELONGATION	ASTM D 4632
PUNCTURE STRENGTH	ASTM D 4833
MULLEN BURST STRENGTH	ASTM D 3786
TRAPEZOID TEAR STRENGTH	ASTM D 4533
UV RESISTANCE	ASTM D 4355
APPARENT OPENING SIZE	ASTM D 4751
FLOW RATE	ASTM D 4491
PERMITIVITY	ASTM D 4491

B DANDY BAG INLET PROTECTION  
NOT TO SCALE



INSTALLATION:

1. STAND GRATE ON END. SLIDE THE BEAVER DAM BAG ON WITH DAM ON TOP OF THE GRATE. PULL ALL EXCESS DOWN.
2. LAY UNIT ON ITS SIDE. CAREFULLY TUCK FLAP IN. PRESS VELCRO STRIPS TOGETHER.
3. INSTALL THE UNIT MAKING SURE FRONT EDGE OF GRATE IS INSERTED IN FRAME FIRST, THEN LOWER BACK INTO PLACE.
4. PRESS VELCRO DOTS TOGETHER WHICH ARE LOCATED UNDER LIFTING STRAPS. THIS ENSURES STRAPS REMAIN FLUSH WITH GUTTER.

MAINTENANCE:

1. WITH A STIFF BRISTLE BROOM, SWEEP SILT AND OTHER DEBRIS OFF SURFACE AFTER EACH STORM EVENT.

D BEAVER DAM INLET PROTECTION  
NOT TO SCALE

DANDY BAG WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT THAT MEETS OR EXCEEDS THE FOLLOWING SPEFICATIONS	
GRAB TENSILE STRENGTH	ASTM D 4632
GRAB TENSILE ELONGATION	ASTM D 4632
PUNCTURE STRENGTH	ASTM D 4833
MULLEN BURST STRENGTH	ASTM D 3786
TRAPEZOID TEAR STRENGTH	ASTM D 4533
UV RESISTANCE	ASTM D 4355
APPARENT OPENING SIZE	ASTM D 4751
FLOW RATE	ASTM D 4491
PERMITIVITY	ASTM D 4491

HORIZONTAL  
SCALE IN FEET

EROSION CONTROL DETAILS

DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

PAT

REVIEWER

JRP 06/06/25

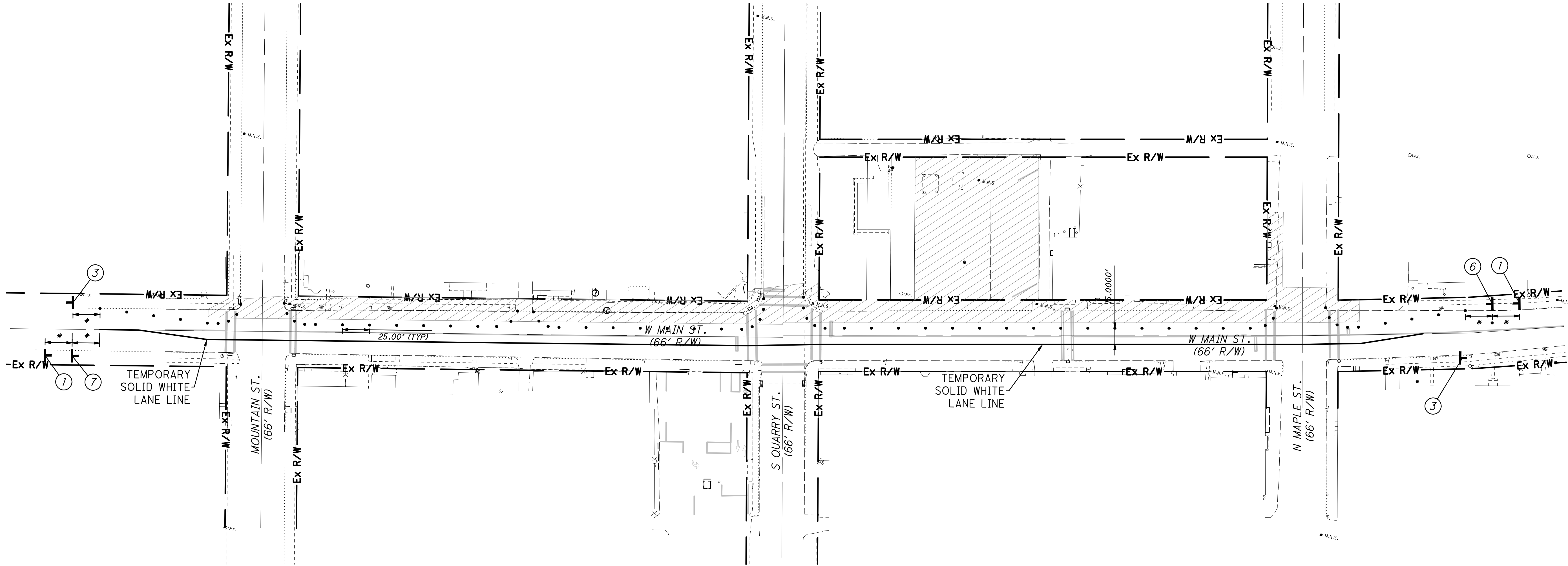
PROJECT ID

SUBSET TOTAL

SHEET TOTAL

P.35 70





- 1

W20-1  
48"x48"
- 2

R10-6  
48"x48"
- 3

G20-2  
48"x48"
- 4

W3-3  
48"x48"
- 5

W20-4  
48"x48"
- 6

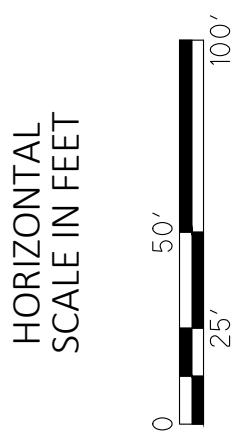
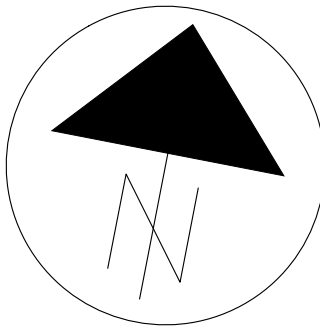
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W24-1R  
48"x48"

\* SIGN SPACING NOT TO SCALE, 100' MINIMUM SPACING BETWEEN SIGNS

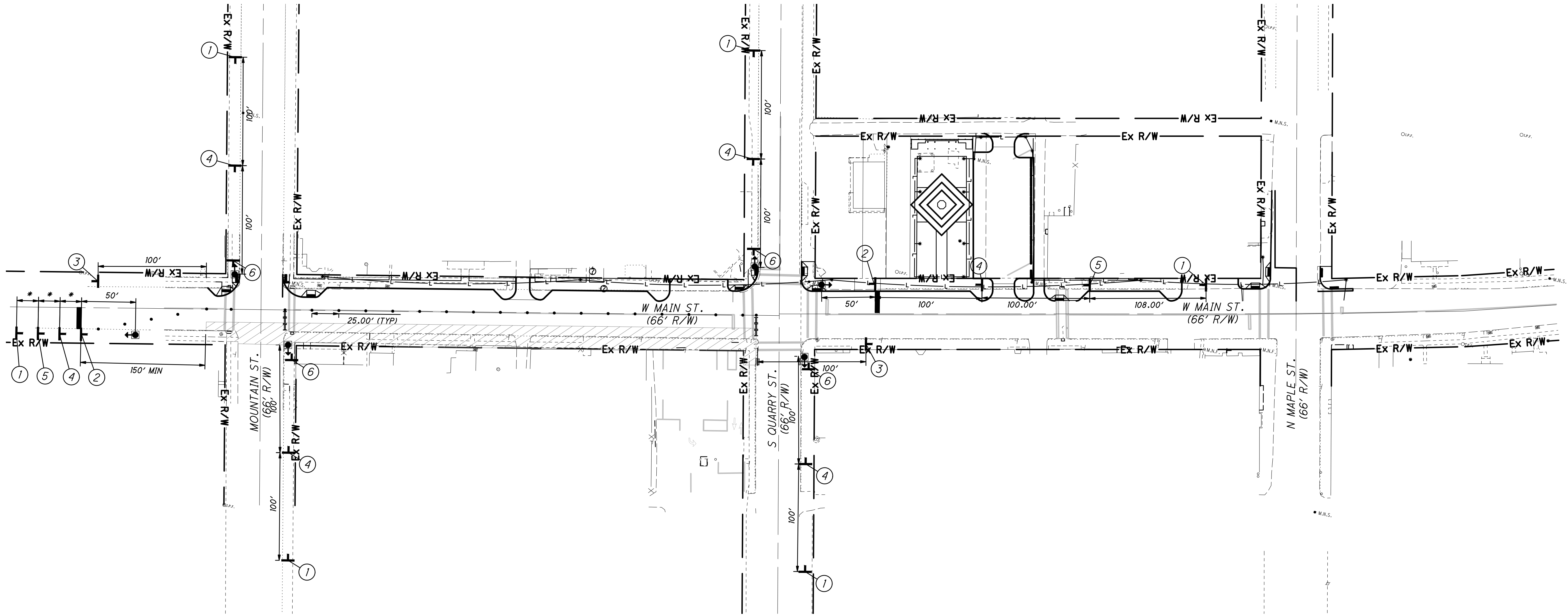
REFER TO ODOT SCD MT-96.11 FOR SIGNAGE DETAILS

- WORK AREA
- TYPE III BARRICADE
- DRUM
- SIGN
- TEMPORARY SIGNAL



MAINTENANCE OF TRAFFIC PHASE 1

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT inc.	
DESIGNER	
PAT	
REVIEWER	
JRP 06/06/25	
PROJECT ID	
SUBSET TOTAL	
SHEET TOTAL	
P.36	70



- 1

W20-1  
48"x48"
- 2

R10-6  
48"x48"
- 3

G20-2  
48"x48"
- 4

W3-3  
48"x48"
- 5

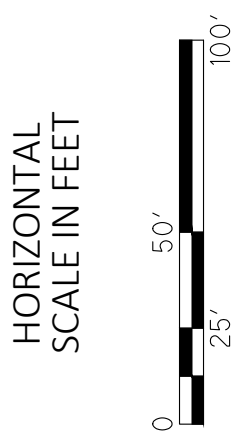
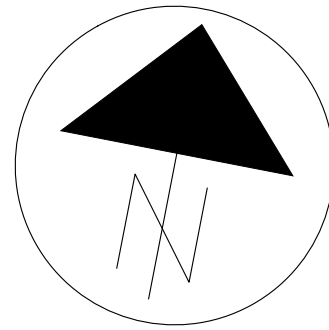
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R10-H11F  
48"x48"

\* SIGN SPACING NOT TO SCALE, 100' MINIMUM SPACING BETWEEN SIGNS

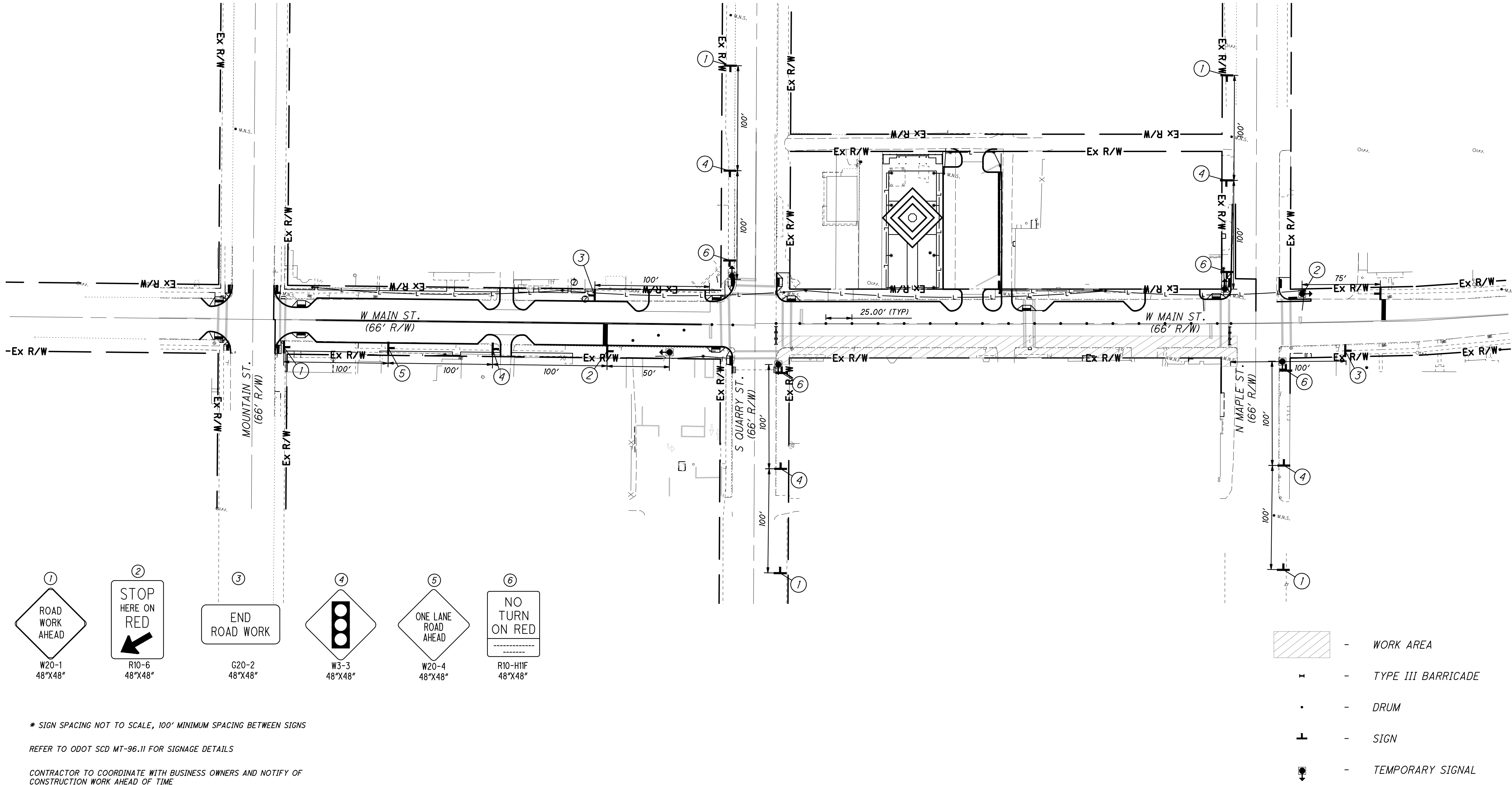
REFER TO ODOT SCD MT-96.11 FOR SIGNAGE DETAILS

- WORK AREA
- TYPE III BARRICADE
- DRUM
- SIGN
- TEMPORARY SIGNAL



MAINTENANCE OF TRAFFIC PHASE 2

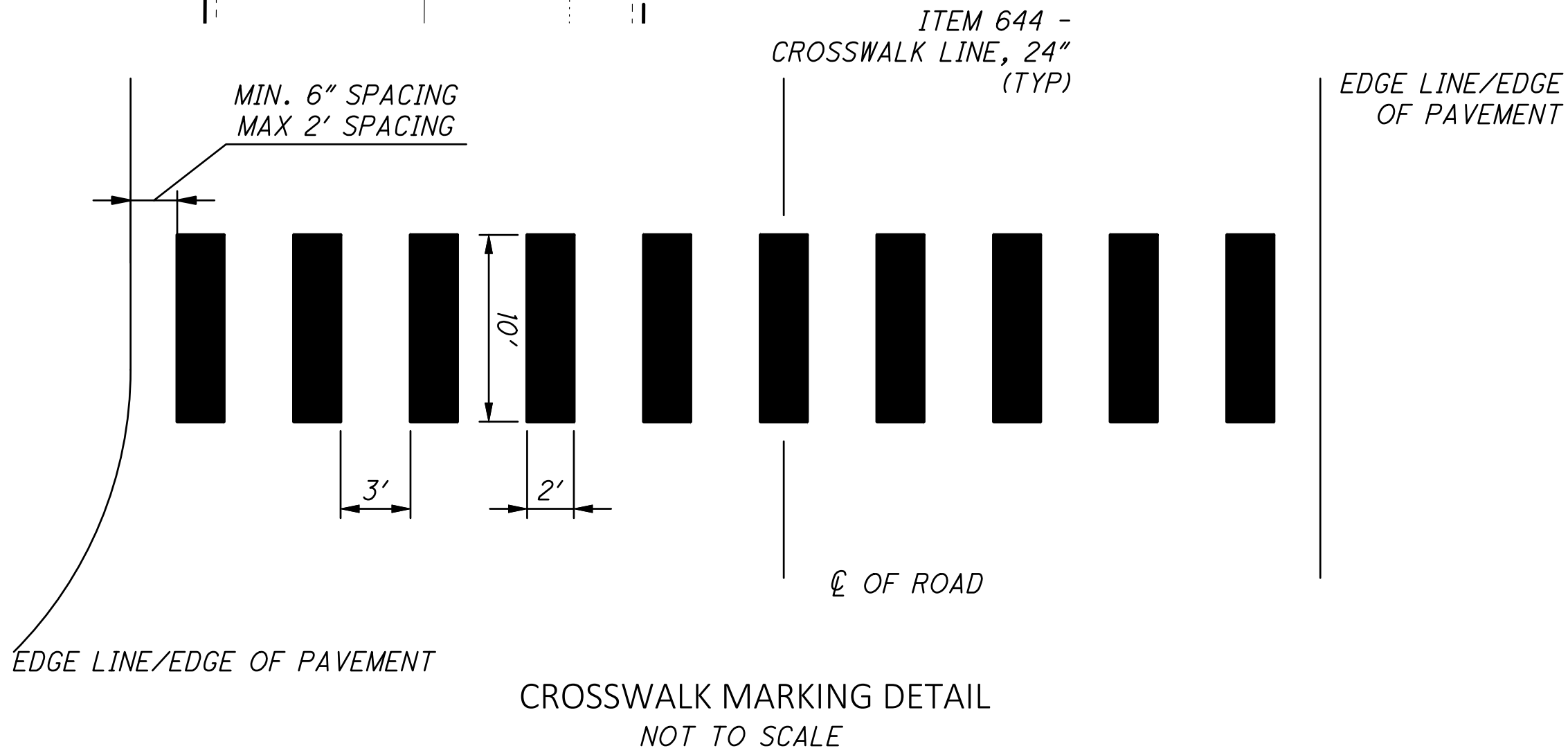
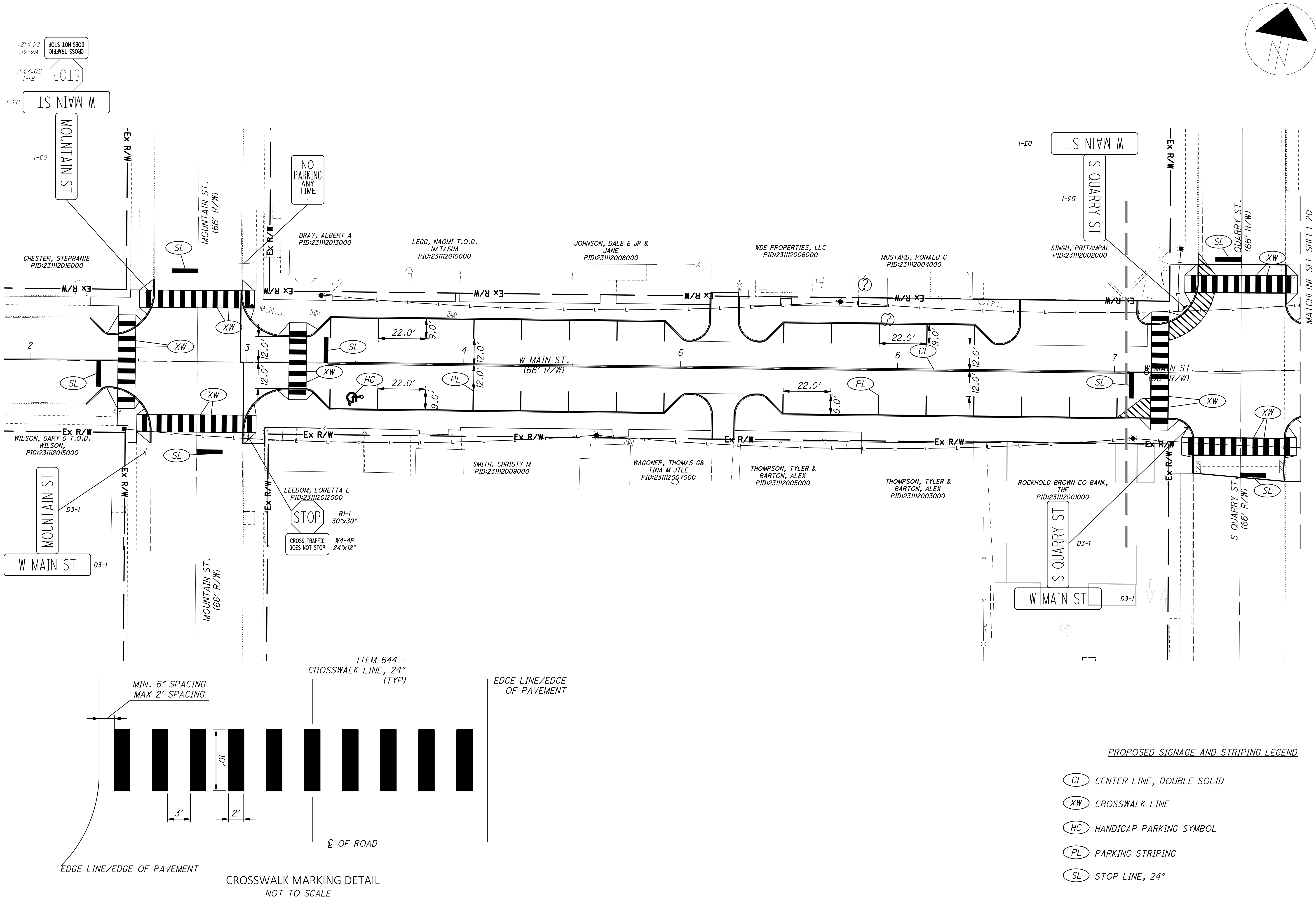
DESIGN AGENCY	
AMERICAN STRUCTUREPOINT inc.	
DESIGNER	PAT
REVIEWER	JRP
PROJECT ID	
06/06/25	
SUBSET	TOTAL
SHEET	TOTAL
P.37	70



\* SIGN SPACING NOT TO SCALE, 100' MINIMUM SPACING BETWEEN SIGNS

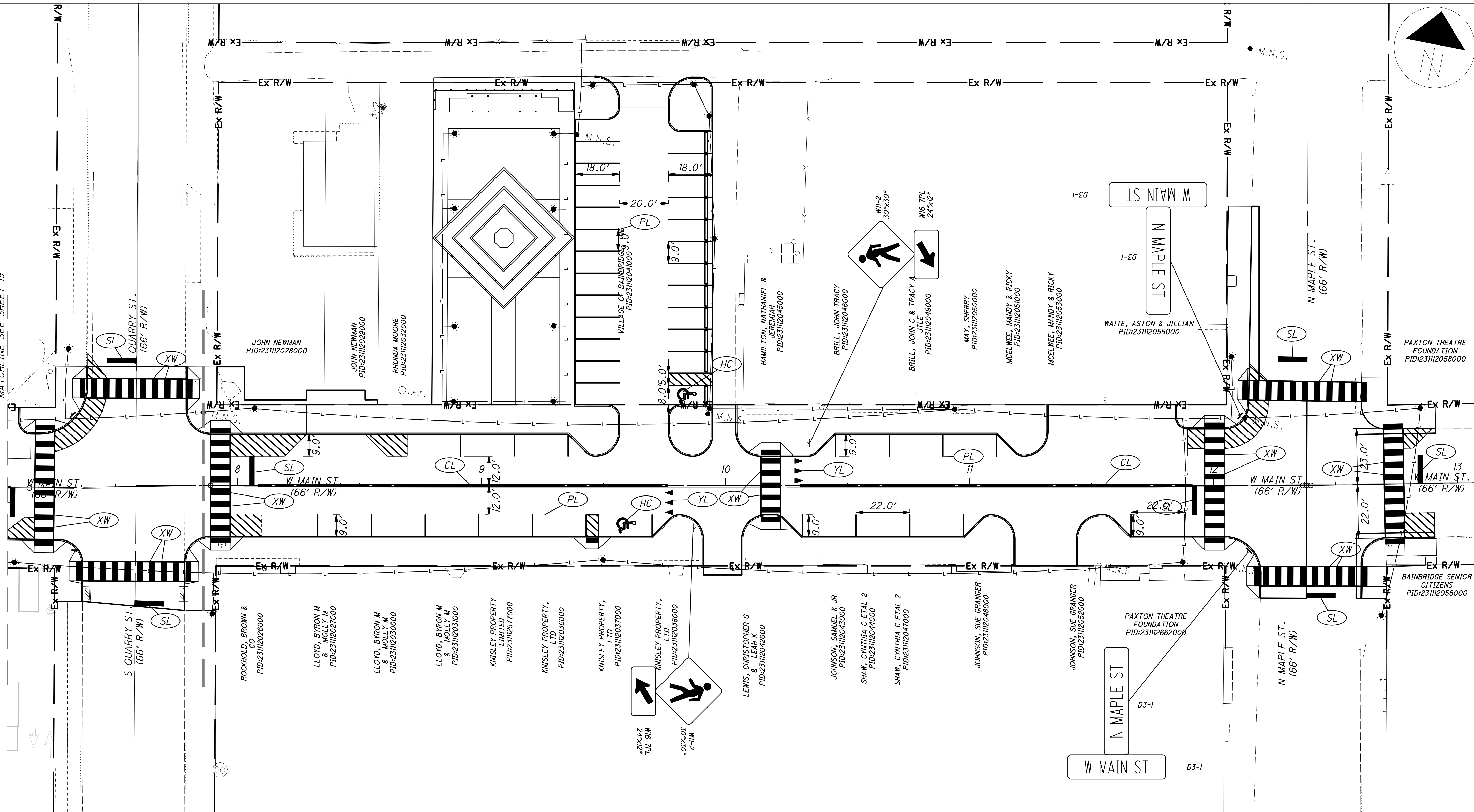
REFER TO ODOT SCD MT-96.11 FOR SIGNAGE DETAILS

CONTRACTOR TO COORDINATE WITH BUSINESS OWNERS AND NOTIFY OF CONSTRUCTION WORK AHEAD OF TIME



- PROPOSED SIGNAGE AND STRIPING LEGEND**
- (CL) CENTER LINE, DOUBLE SOLID
  - (XW) CROSSWALK LINE
  - (HC) HANDICAP PARKING SYMBOL
  - (PL) PARKING STRIPING
  - (SL) STOP LINE, 24"





## STREET SIGNAGE & MARKING PLAN

**AMERICAN  
STRUCTUREPOINT  
INC.**

PAT

VIEWER  
06/06/25

CT ID

TOTAL	
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	TOTAL
0	70

HORIZONTAL  
SCALE IN FEET





SIGNAL ACTIVATION

PRIOR TO ACTIVATING THE NEW TRAFFIC SIGNAL TO STOP-AND-GO MODE AND/OR REMOVING THE EXISTING TRAFFIC SIGNAL FROM SERVICE, ALL ITEMS IN THE PROPOSED SIGNAL PLAN SHALL BE FULLY COMPLETED, (I.E., VEHICLE DETECTION, PEDESTRIAN SIGNAL HEADS, ETC). IF THERE ARE CONSTRUCTABILITY ISSUES (I.E., ROADWAY WIDENING, ETC.) THAT PREVENT THE SIGNAL FROM BEING COMPLETED PRIOR TO ACTIVATION, IT SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER. THE DISTRICT TRAFFIC ENGINEER WILL THEN REVIEW, APPROVE OR REJECT PROPOSALS TO ACTIVATE THE TRAFFIC SIGNAL PRIOR TO COMPLETION.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER AT LEAST 10 WORKING DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION OF THE SIGNAL INSTALLATION. FINAL INSPECTION IS NOT CONSIDERED COMPLETE UNTIL DESIGNATED DISTRICT TRAFFIC PERSONNEL INSPECT THE TRAFFIC SIGNAL AND ISSUE WRITTEN APPROVAL. IF ISSUES ARE FOUND DURING THE FINAL INSPECTION THAT EFFECT THE SAFETY OF THE TRAVELING PUBLIC AND/OR THE EFFICIENCY OF THE INTERSECTION, THE SIGNAL SHALL NOT BE ACTIVATED ON THE PROPOSED DATE. ANY PUNCH LIST ITEMS THAT ARE FOUND SHALL BE CORRECTED AND REINSPECTED BY DISTRICT TRAFFIC PERSONNEL PRIOR TO FINAL ACCEPTANCE. ODOT FORCES SHALL ONLY ASSUME DAY TO DAY MAINTENANCE OF THE TRAFFIC SIGNAL AFTER FINAL WRITTEN ACCEPTANCE HAS BEEN ISSUED.

WORK INSPECTION

THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER WITH 72-HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INTERSECTION SITE(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

SIGNAL SUPPORT AND PEDESTAL FOUNDATION ELEVATIONS

ELEVATIONS SHOWN IN THE PLANS FOR SIGNAL SUPPORTS AND PEDESTAL FOUNDATIONS ARE FOR COMPUTATIONAL PURPOSES ONLY. THE ACTUAL ELEVATION OF THE FOUNDATION SHALL BE IN ACCORDANCE WITH TRAFFIC SCD TC-21.21 PROVIDED THE EXISTING SLOPE IS LESS THAN 6:1.

AT LOCATIONS WHERE THE EXISTING SLOPE IS 6:1 OR GREATER, THE BURIED DEPTH OF FOUNDATION, AS SHOWN IN SCD TC-21.21 SHALL APPLY TO THE LOW SIDE OF THE SLOPE. THE TOP OF THE FOUNDATION SHALL BE SET 2 INCHES ABOVE THE EXISTING SURFACE ON THE HIGH SIDE OF THE SLOPE. THE ADDITIONAL DEPTH OF FOUNDATION NECESSARY TO MEET THESE REQUIREMENTS SHALL BE ADDED TO THE FORMED TOP.

GUARANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY.

EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLER, CABINET, UNINTERRUPTIBLE POWER SUPPLY, VEHICLE DETECTION EQUIPMENT, LED LAMP UNITS, NETWORK AND COMMUNICATION/ INTERCONNECT EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

633 CABINET, TYPE TS-2, AS PER PLAN

THE CABINET SHALL BE FURNISHED AND INSTALLED ACCORDING TO CMS 633 AND 733 AND BE LISTED ON THE TRAFFIC AUTHORIZED PRODUCTS LIST (TAP).

THE POLE-MOUNTED CABINET SHALL BE A NEMA 332, TYPE 1, CABINET SIZE 7 WITH 16 LOAD SWITCH BAYS, LED UNDER-SHELF LIGHTING, POWER HARNESSES FOR BOTH TS2 TYPE 1 AND TYPE 2 CONTROLLERS AND SHALL HAVE A MINIMUM OF THREE SHELVES.

EACH CABINET SHALL COME EQUIPPED WITH TWO 16-CHANNEL CABINET DETECTOR RACKS (CDR) INCLUDING BUS INTERFACE UNITS (BIU). THE LOOP DETECTOR TERMINATION PANEL FOR THE SECOND DETECTOR RACK SHALL BE OMITTED.

THE CABINET SHALL BE FURNISHED WITH AN EDI MMU AS ALLOWED ON THE TAP/APPROVED PRODUCTS LIST.

PAYMENT FOR ITEM 633 CABINET, TYPE 332, AS PER PLAN WILL BE AT THE CONTRACT BID PRICE PER EACH COMPLETE AND IN PLACE INCLUDING ALL CONNECTIONS TESTED AND ACCEPTED.

633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT,

THE UPS CABINET SHALL INCLUDE A GENERATOR POWER PANEL WITH A HEAVY-DUTY POWER RELAY VERSUS THE LINE VOLTAGE GENERATOR SWITCH. THE GENERATOR INLET SHALL BE A RECESSED PANEL WITH A DOOR THAT IS FLUSH WITH THE EXTERNAL SIDE OF THE UPS CABINET. IT SHALL INCLUDE A RECESSED PLUG, AUTOMATIC TRANSFER SWITCH AND A DOOR THAT SECURELY CLOSSES OVER THE POWER CORD.

THE CABINET SHALL HAVE A DOOR STOP MECHANISM AND THERMOSTATICALLY CONTROLLED FAN. ADDITIONALLY, THE CABINET SHALL BE BUILT WITH ALL BATTRIES ALWAYS BELOW THE INVERTER TO AVOID POTENTIAL FURTHER BATTERY LEAKAGE ISSUES.

THE CABINET SHALL INCLUDE A BATTERY BALANCING DEVICE THAT REGULATES THE BATTERIES AND OPTIMIZES

AFTER FOUR (4) HOURS OF BATTERY RUNTIME, THE SYSTEM SHALL BE PROGRAMMED TO SWITCH THE INTERSECTION FROM FULL OPERATION TO CONTROLLER AUTOMATIC FLASH OPERATION THROUGH THE MONITOR. THE CONTROLLER SHALL BE PROGRAMMED SO THAT FLASH OPERATION SHALL BEGIN ONCE THE INTERSECTION RUNS MINOR STREET GREEN (TYP. PH. 4 &8), ALL-RED CLEARANCE, AND THEN FLASH OPERATION.

THE UPS OUTPUT NOTIFICATIONS FOR ON BATTERY, BATTERY 2-HOUR TIMER, AND LOW BATTERY SHALL BE WIRED INTO THE TRAFFIC SIGNAL CABINET BACK PANEL OR THROUGH THE CONTROLLER WITH A C11 TO PROVIDE SPECIAL STATUS ALARMS FOR EACH OUTPUT INTO THE SIGNAL CONTROLLER.

633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN (CONT.)

THIS ITEM SHALL INCLUDE A RED LED STATUS INDICATOR LAMP TO ALLOW MAINTENANCE PERSONNEL AND LAW ENFORCEMENT TO QUICKLY ASSESS WHETHER A TRAFFIC SIGNAL CABINET IS BEING POWERED BY A UPS. THE LED HOUSING SHALL BE NEMA 4X, IP65 OR IP66, RATED FOR OUTDOOR USE AND BE TAMPER/ SHATTER RESISTANT. IT SHALL BE A DOMED ENCLOSURE CONTAINING A RED LENS WITH LED THAT IS VISIBLE FROM 100 FOOT MINIMUM. THE ENCLOSURE AND LED MODULE SHOULD BE PLACED ON THE SIDE OF THE UPS CABINET FACING TOWARDS THE MAINLINE ROADWAY AND SEALED FROM WATER INTRUSION. IT SHOULD BE WIRED USING MINIMUM 20GA STRANDED, INSULATED HOOKUP WIRE TO THE STATUS RELAY OUTPUTS OF THE UPS. THE WIRES SHALL BE TERMINATED BY LUGS AT THE DISPLAY END AND PERMANENTLY LABELED "BACKUP POWER STATUS DISPLAY," WITH WIRE POLARITY INDICATED. THE RED LED SHALL ONLY ILLUMINATE TO INDICATE THE CABINET IS OPERATING UNDER UPS BACKUP POWER (THE "BACKUP" OPERATING CONDITION). THIS ITEM INCLUDES PROGRAMMING THE UPS STATUS RELAY OUTPUTS TO PRODUCE THE LAMP STATUS DISPLAYS. THESE STATUS DISPLAYS WILL BE SOLID 100% DUTY CYCLE (NOT FLASHING) DISPLAYS. THE OPERATING VOLTAGE OF THE LED LAMP SHALL BE 120V AC UNLESS OTHERWISE INDICATED.

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.

A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.

B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.

C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.

D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.

E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.

F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

GROUNDING AND BONDING (CONT.)

2. CONDUITS.

A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.

C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

3. WIRE FOR GROUNDING AND BONDING.

A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.

II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.

4. GROUND ROD.

A. A 3/4-INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.

B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC.	
DESIGNER	BS
REVIEWER	CR 06/06/25
PROJECT ID	2024.02405
SHEET	TOTAL
P.41	70



GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

1. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH.

A. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.

B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.

C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.

D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.

E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.

F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2. CONDUITS.

A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.

C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

3. WIRE FOR GROUNDING AND BONDING.

A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.

II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING" INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.

4. GROUND ROD.

A. A 3/4-INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.

B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/BLACK	STRIPE YELLOW ARROW	NOT USED

6. POWER SERVICE AND DISCONNECT SWITCH.

A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.

B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.

I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.

II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

7. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

632 SIGNAL SUPPORT FOUNDATION

PRIOR TO ORDERING THE SIGNAL SUPPORTS, THE CONTRACTOR SHALL CONTACT OUPS TO HAVE ALL THE UTILITIES LOCATED IN THE FIELD. THEN THE CONTRACTOR SHALL MEET THE PROJECT ENGINEER TO LOCATE THE PROPOSED SUPPORT LOCATIONS TO INSURE THERE ARE NO CNLICTS WITH UTILITIES. IF THERE ARE ISSUES, THE PROJECT ENGINEER SHALL PROVIDE GUIDANCE AS TO THE RELOCATION OF THE SUPPORTS.

DUE TO THE FURTHER POSSIBILITY OF CONFLICT WITH EXISTING OR PROPOSED UNDERGROUND OBSTRUCTIONS (INCLUDING THE POSSIBILITY OF UNRECORDED OBSTRUCTION)

WHICH COULD AFFECT THE LOCATION OF THE FOUNDATION FOR THIS ITEM, AND CONSEQUENTLY, THE DESIGN OF THE SUPPORT AND/OR ARMS, THE CONTRACTOR SHALL NOT PLACE FINAL ORDERS FOR THE ITEM UNTIL THE FOUNDATIONS HAVE BEEN INSTALLED, AT FINAL GRADE, AND THE CONTRACTOR HAS RECEIVED, FROM ENGINEER, WRITTEN NOTICE TO PROCEED WITH THE ORDERS FOR THE ITEM.

IF ANY FOUNDATION LOCATIONS MUST BE ADJUSTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND MAINTAINING AGENCY, WHO WILL DETERMINE THE REVISED LOCATION AND IF NEEDED, THE SUPPORT DESIGN. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR DETERMINING THE REVISED DESIGN. THE ENGINEER WILL INFORM THE CONTRACTOR OF ANY CHANGES NECESSARY AND AUTHORIZE THE CONTRACTOR TO ORDER THE SUPPORT.

THE CONTRACTOR SHALL, WHEN DEVELOPING THE PROGRESS SCHEDULE, AND THOSE OF SUBCONTRACTORS, ENSURE THAT THE FOUNDATIONS ARE INSTALLED AT THE EARLIEST TIME AS IS FEASIBLE AND PRACTICAL, AND SHALL INCLUDE SUFFICIENT TIME IN THE PROGRESS SCHEDULE FOR ORDERING, MANUFACTURING, DELIVERY, AND INSTALLATION OF THE SUPPORT ITEMS AFTER THE FOUNDATIONS ARE IN PLACE.

NO PAYMENTS FOR DELIVERED MATERIALS FOR THE FOUNDATION OR SUPPORT ITEMS SHALL BE MADE UNTIL THE FOUNDATIONS ARE IN PLACE, AND IF CHANGES IN THE DESIGN OF THIS ITEM ARE REQUIRED, NO PAYMENT SHALL BE MADE FOR THE ITEMS MANUFACTURED TO THE ORIGINAL DESIGN.

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE AND WILL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND OTHER INCIDENTALS NECESSARY FOR EACH SUPPORT FURNISHED, IN PLACE, COMPLETE AND ACCEPTED.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNAL/FLASHER INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/FLASHER INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.

MAINTENANCE OF TRAFFIC SIGNAL/FLASHER INSTALLATION (CONT.)

2. NEW OR REUSED SIGNAL/FLASHER INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN FOUR HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION. IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE ACCIDENT THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

DESIGN AGENCY



DESIGNER  
BS

REVIEWER  
CR 06/06/25

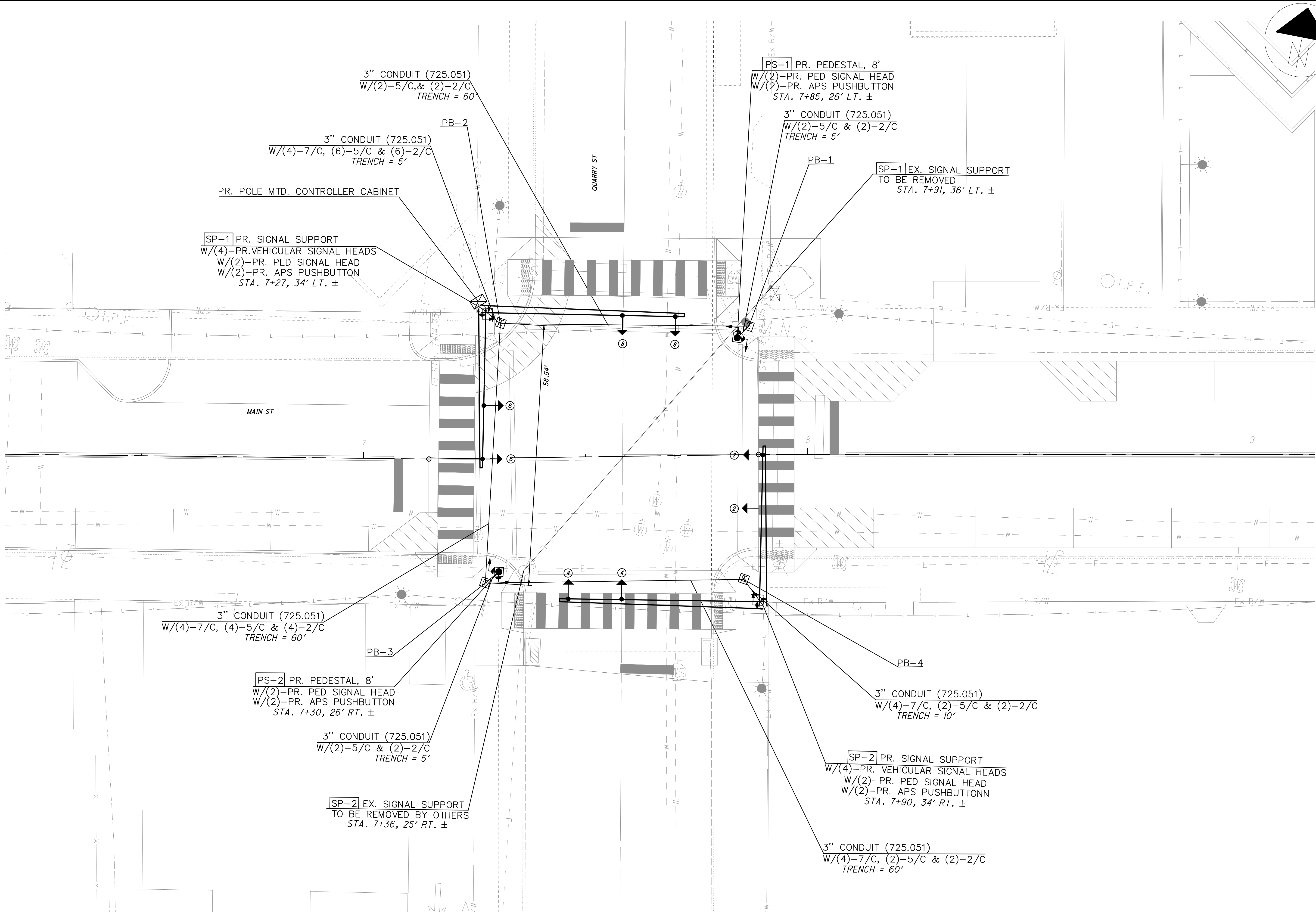
PROJECT ID  
2024.02405

SHEET	TOTAL
P.42	70



SHEET NUM.						ITEM	ITEM EXT	GRAND TOTAL.	UNIT	DESCRIPTION
1	2	3	4	5	6					
193	197					625	25504	389	FT	CONDUIT 3", 725.051
138	140					625	25900	277.69	FT	CONDUIT, JACKED OR DRILLED
55	57					625	29400	112	FT	TRENCH IN PAVED AREA
3	3					625	30700	6	EACH	PULL BOX, 18"
1	1					625	30706	2	EACH	PULL BOX, 725.08
4	4					625	32000	8	EACH	GROUND ROD
1	1					625	3400	2	EACH	POWER SERVICE
193	197					625	36010	389	FT	UNDERGROUND WARNING/MARKING TAPE
4	4					630	7500	8	EACH	SIGN ATTACHMENT ASSEMBLY
4	4					630	80510	8	EACH	SIGN STREET NAME
8	8					632	5006	16	EACH	VEHICULAR SIGNAL HEAD (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE
8	8					632	20730	16	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN
8	8					632	26000	16	EACH	PEDESTRIAN PUSHBUTTON
576	577					632	40200	1153	FT	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG
608	609					632	40500	1217	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG
1027	1022					632	40700	2049	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
2	2					632	64010	4	EACH	SIGNAL SUPPORT FOUNDATION
2	2					632	64020	4	EACH	PEDESTAL FOUNDATION
50	50					632	69800	100	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG
2	2					632	71244	4	EACH	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 6 POLE, WITH MAST ARMS TC-81.22 DESIGN 12 AND DESIGN 4
2	2					632	89802	4	EACH	PEDESTAL, 8', TRANSFORMER BASE
2	2					632	90101	4	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN
2	2					632	90103	4	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION FOR STORAGE, AS PER PLAN
1	1					633	65530	2	EACH	CABINET, TYPE 336
1	1					633	75000	2	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT





TRAFFIC SIGNAL DETAIL

W Main St & Quarry St

DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

BS

REVIEWER

CR 06/06/25

PROJECT ID

2024.02405

SHEET

P. 44

TOTAL

70

HORIZONTAL  
SCALE IN FEET

0

10'

20'

40'

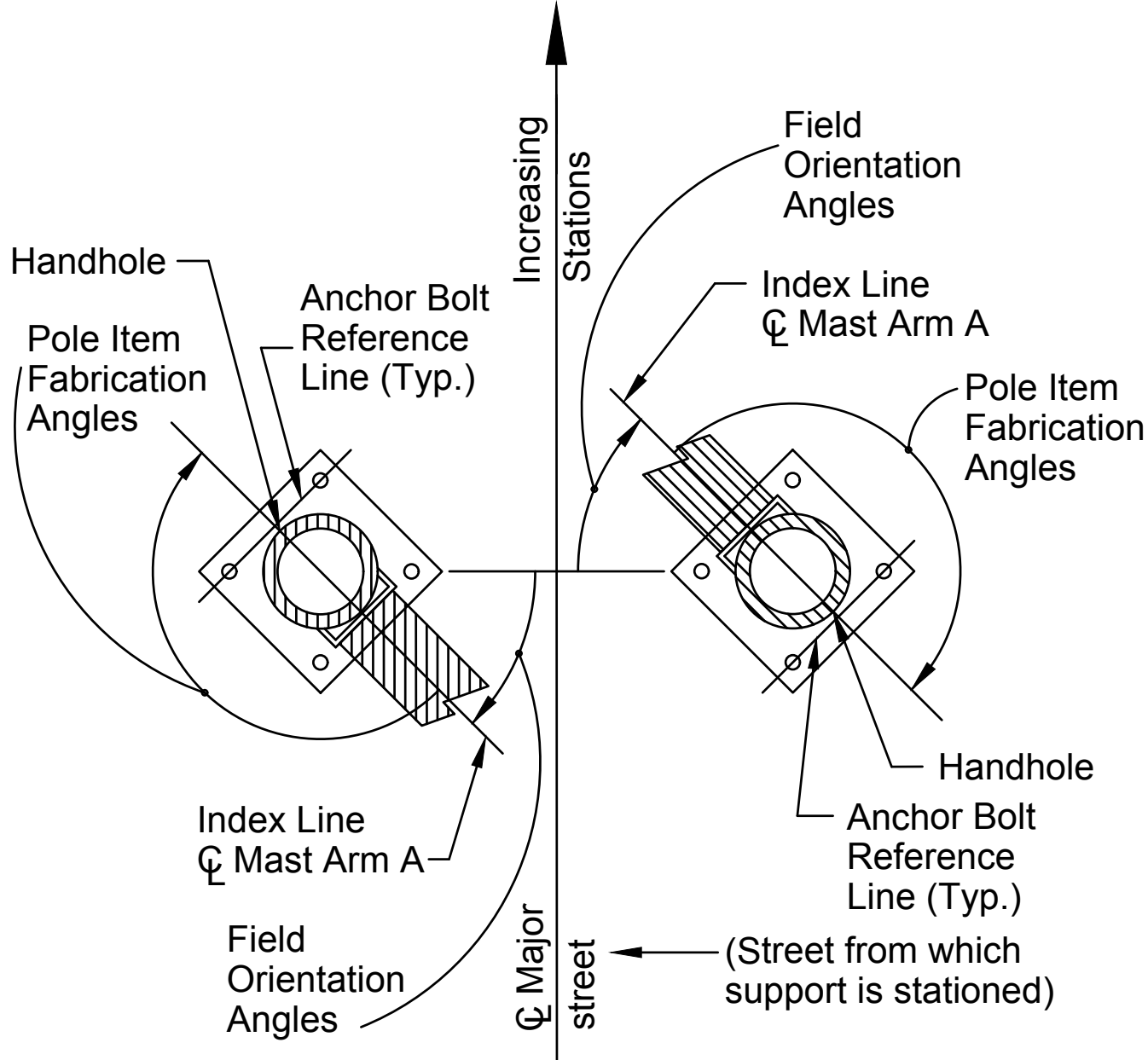
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10'

20'

40'

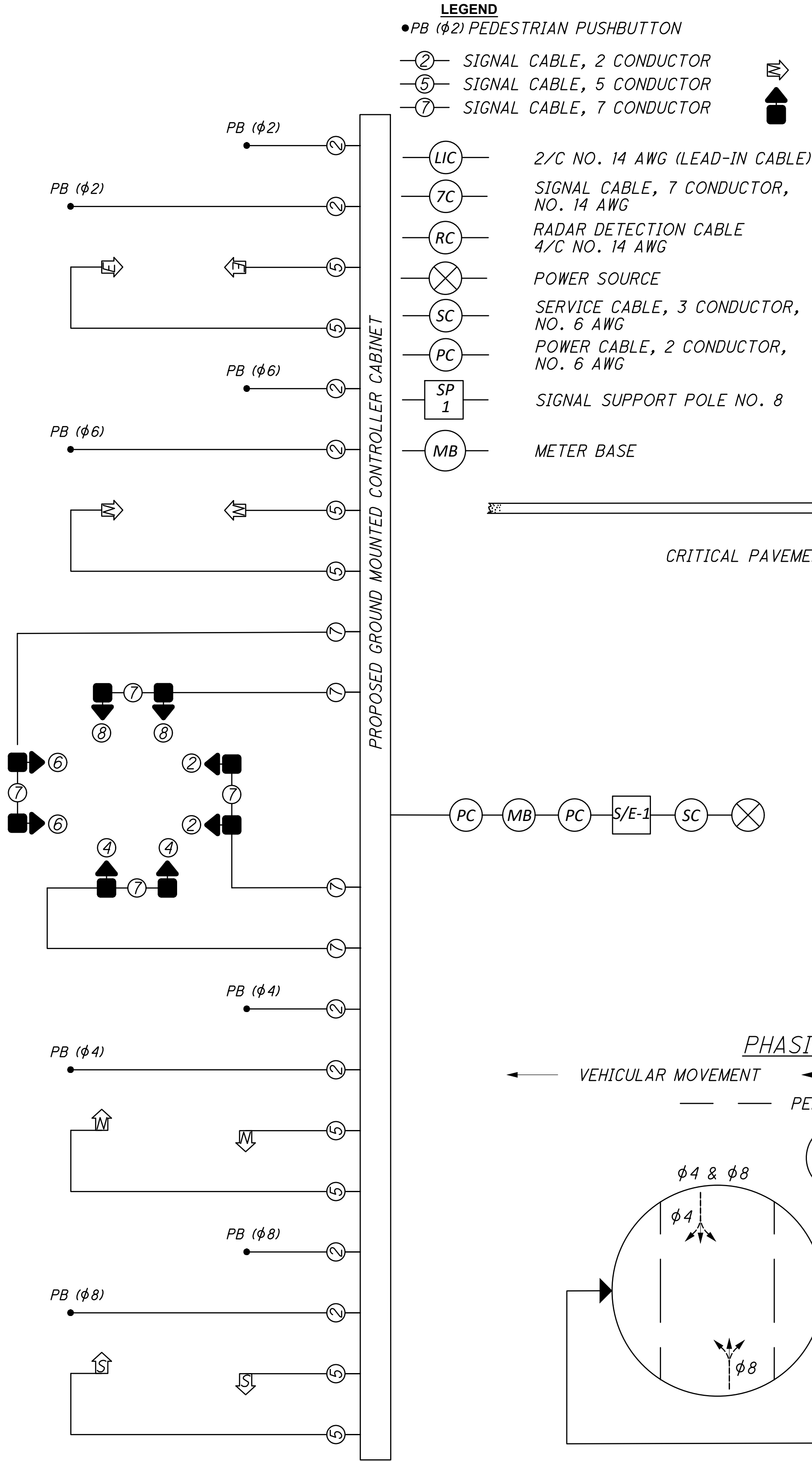
INTERSECTION	SHEET NO.	SUPPORT DESIGNATION	POLE COLOR / FEDERAL STANDARD 595B	POLE DESIGN NO.	MAST HT. (FT.)	MAST ARM LENGTH (FT.)	OBJECT ATTACHMENT HEIGHT				DISTANCE FROM BUTT PLATE (FT.)						POLE FABRICATION DATA - CLOCKWISE FROM MAST ARM A AT 0 DEGREES						FIELD ORIENTATION		
							MAST ARM	RADAR DETECTOR	BRACKET ARM		S-1	L-1	S-2	L-2	S-3	L-3	ANCHOR BOLT REFERENCE LINE	PED. SIGNALS	PED. PUSH BUTTON	BRACKET ARM	STREET NAME SIGNS	HANDHOLE	INDEX LINE ANGLE, MAST ARM A	ANCHOR BOLT REFERENCE LINE	FOUNDATION ELEVATION
Main St. & Quarry St.	78	NW-1	SEMI-GLOSS BLACK #27038		20	44.7	19.5	-	-		6.0	31.0	-	42.7	-	-	90	90	90	-	-	180	270	0	-
						34.9	19.5	-	-		6.0	20.9	-	33.1	-	-	-	0	0	-	-	-	0	-	-
	78	SE-1	SEMI-GLOSS BLACK #27038		25	45	19.5	-	-		6.0	30.9	-	43.0	-	-	90	90	90	-	-	180	270	0	-
						35	19.5	-	-		6.0	21.0	-	33.1	-	-	-	0	0	-	-	-	0	-	-



TYPICAL SIGNAL SUPPORT ORIENTATION DETAIL

FIELD WIRING HOOK-UP CHART

SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
2(EB)	R	φ2 R	R
	Y	φ2 Y	
	G	φ2 G	
4(SB)	R	φ4 R	R
	Y	φ4 Y	
	G	φ4 G	
6(WB)	R	φ6 R	R
	Y	φ6 Y	
	G	φ6 G	
8(NB)	R	φ8 R	R
	Y	φ8 Y	
	G	φ8 G	
E(EAST)	WALK	G (φ2)-W	OFF
	DON'T WALK	R (φ2)-DW	
S(SOUTH)	WALK	G (φ4)-W	OFF
	DON'T WALK	R (φ4)-DW	
W(WEST)	WALK	G (φ6)-W	OFF
	DON'T WALK	R (φ6)-DW	
N(NORTH)	WALK	G (φ8)-W	OFF
	DON'T WALK	R (φ8)-DW	



LEGEND

- ② SIGNAL CABLE, 2 CONDUCTOR
- ⑤ SIGNAL CABLE, 5 CONDUCTOR
- ⑦ SIGNAL CABLE, 7 CONDUCTOR

- PEDESTRIAN SIGNAL
- VEHICULAR SIGNAL

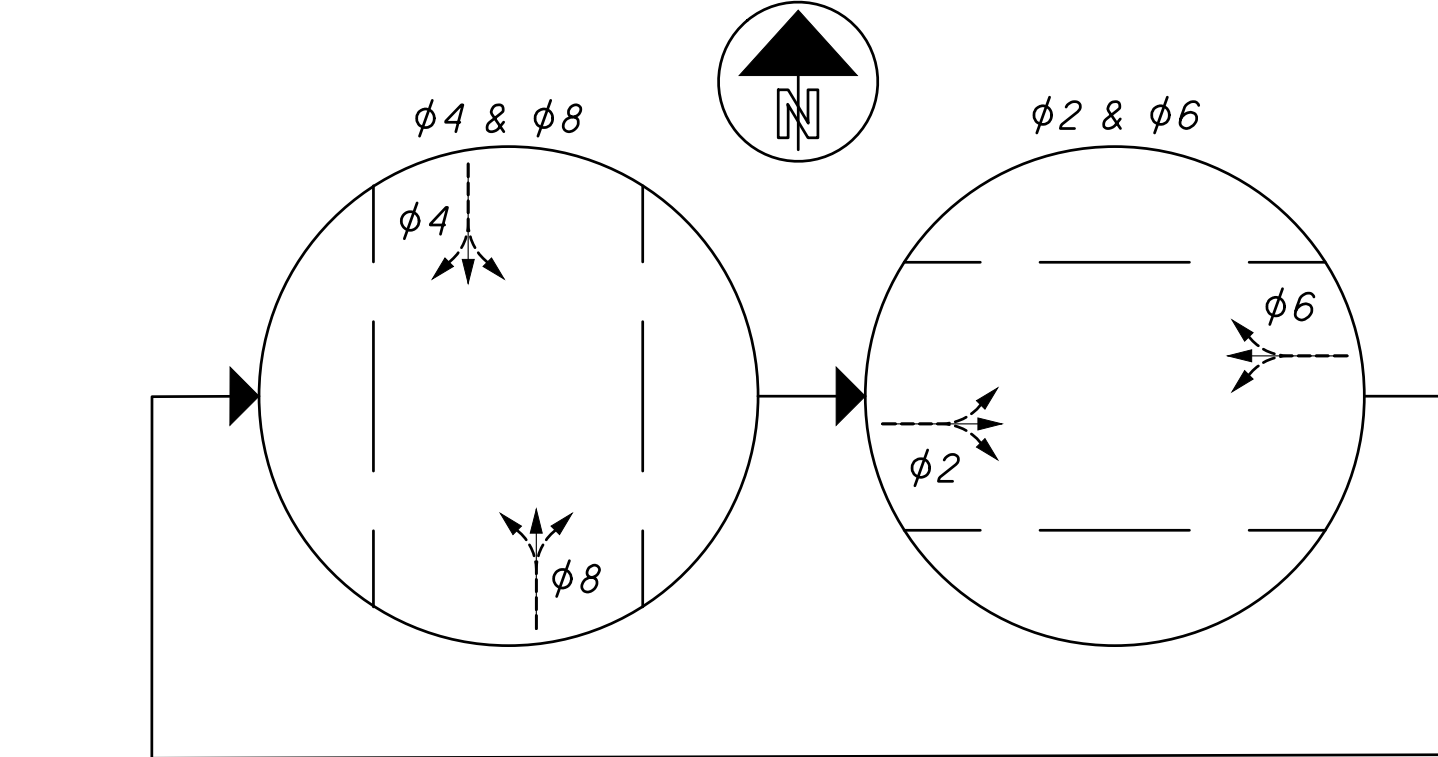
- LIC 2/C NO. 14 AWG (LEAD-IN CABLE)
- 7C SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
- RC RADAR DETECTION CABLE 4/C NO. 14 AWG
- SC SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG
- PC POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
- SP 1 SIGNAL SUPPORT POLE NO. 8
- MB METER BASE

ELEV. (A)  
CRITICAL PAVEMENT ELEVATION

SIGNAL SUPPORT ELEVATION  
(TYPICAL)



PHASING DIAGRAM



TOP OF SIGNAL SUPPORT AND PEDESTAL FOUNDATIONS SHALL BE LEVEL WITH THE SIDEWALK ELEVATION WHERE ADA LANDINGS ARE ADJACENT; ELSEWHERE, FOUNDATIONS SHALL BE 2" (± 1") ABOVE GRADE PER TC-21.21

HORIZONTAL SCALE IN FEET

TRAFFIC SIGNAL DETAIL  
W Main St & Quarry St

DESIGN AGENCY

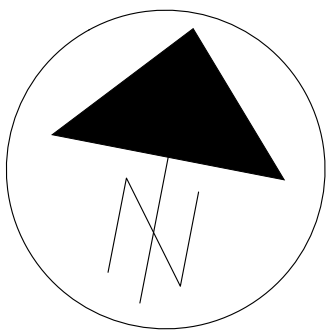
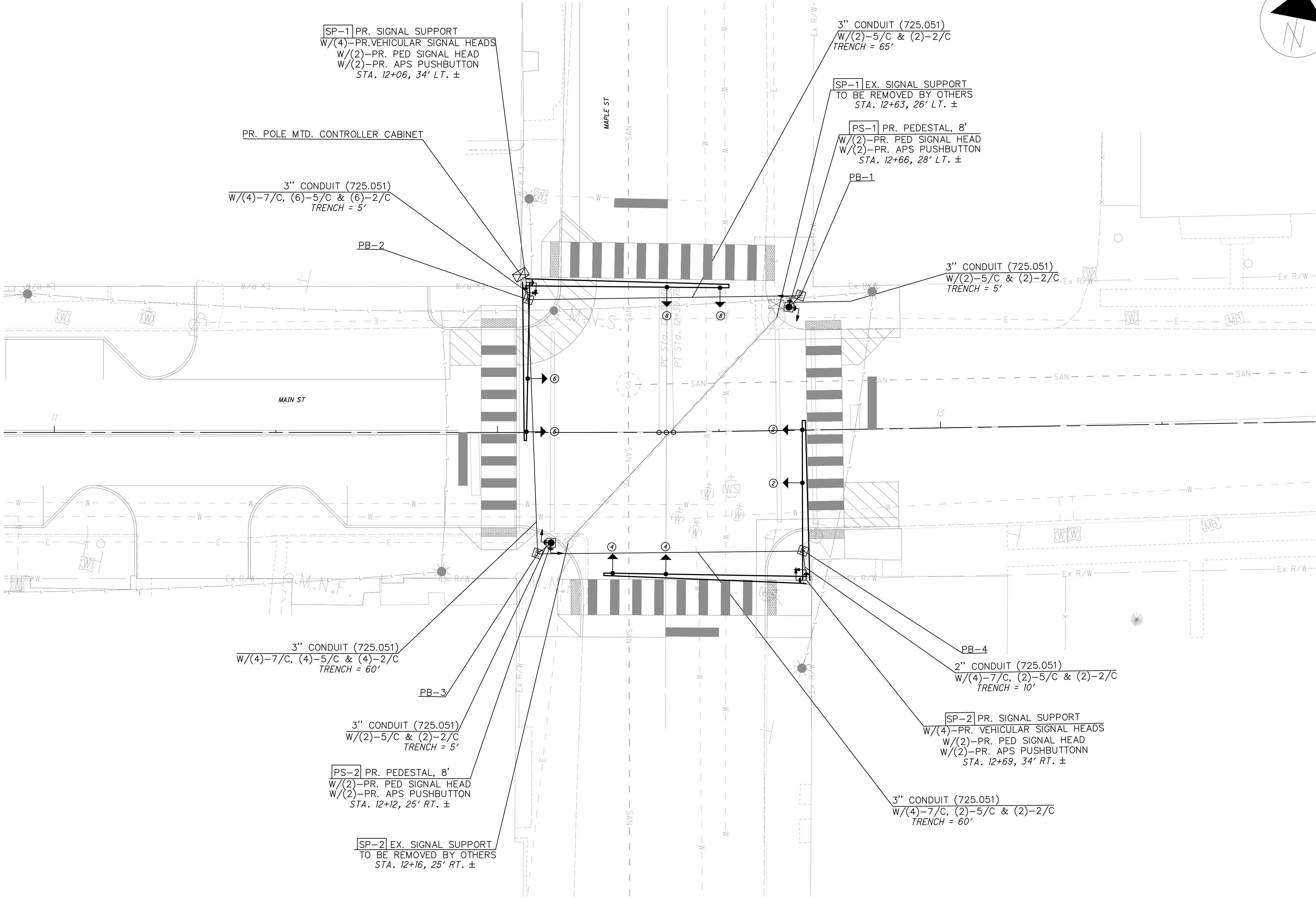
AMERICAN STRUCTUREPOINT INC.

DESIGNER BS

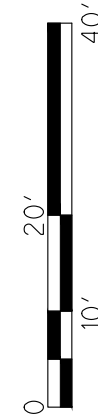
REVIEWER CR 06/06/25

PROJECT ID 2024.02405

SHEET P. 45 TOTAL 70



HORIZONTAL  
SCALE IN FEET



TRAFFIC SIGNAL DETAIL  
W Main St & N Maple St

DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

BS

REVIEWER

CR 06/06/25

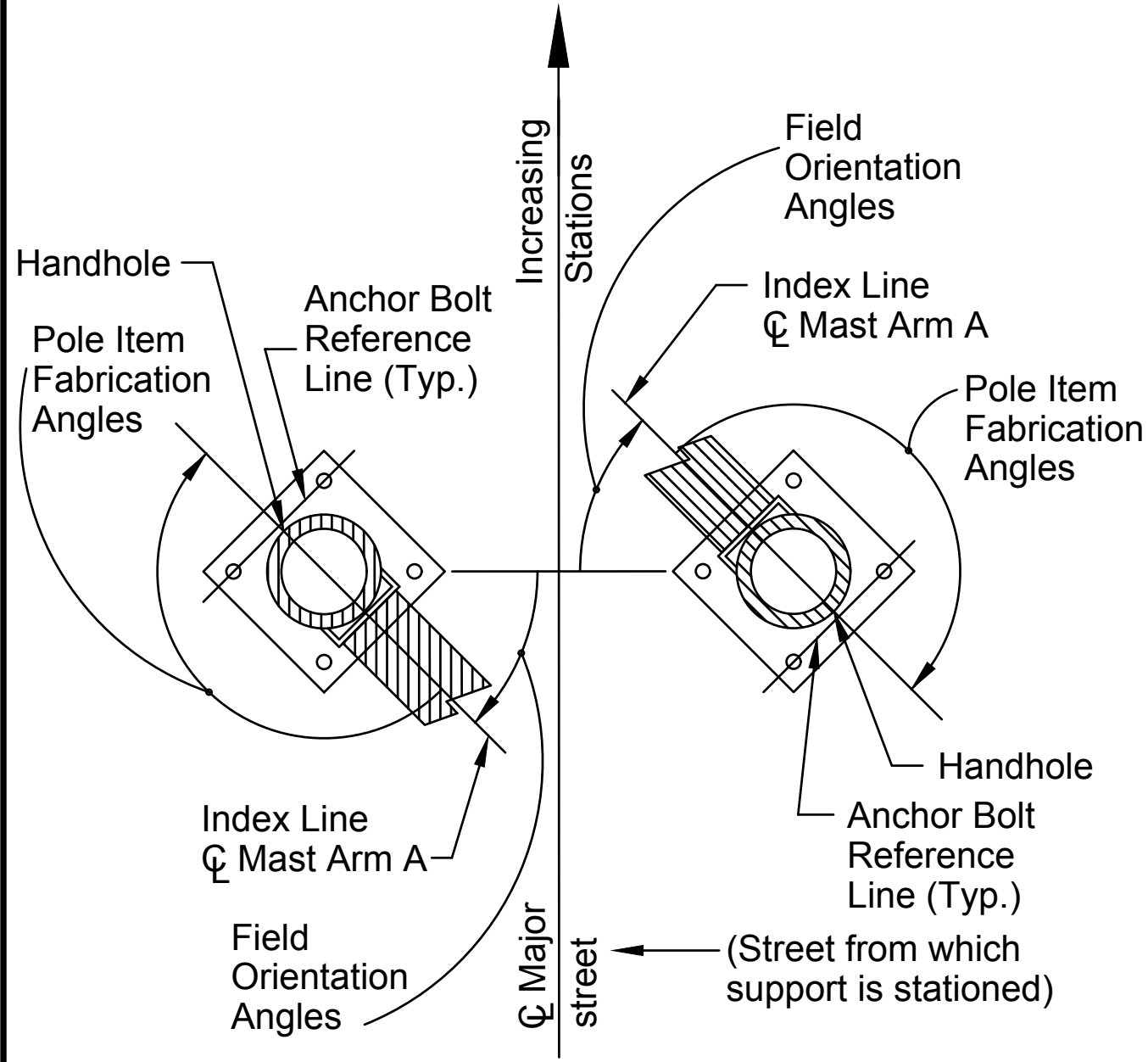
PROJECT ID

2024.02405

SHEET TOTAL

P.46 70

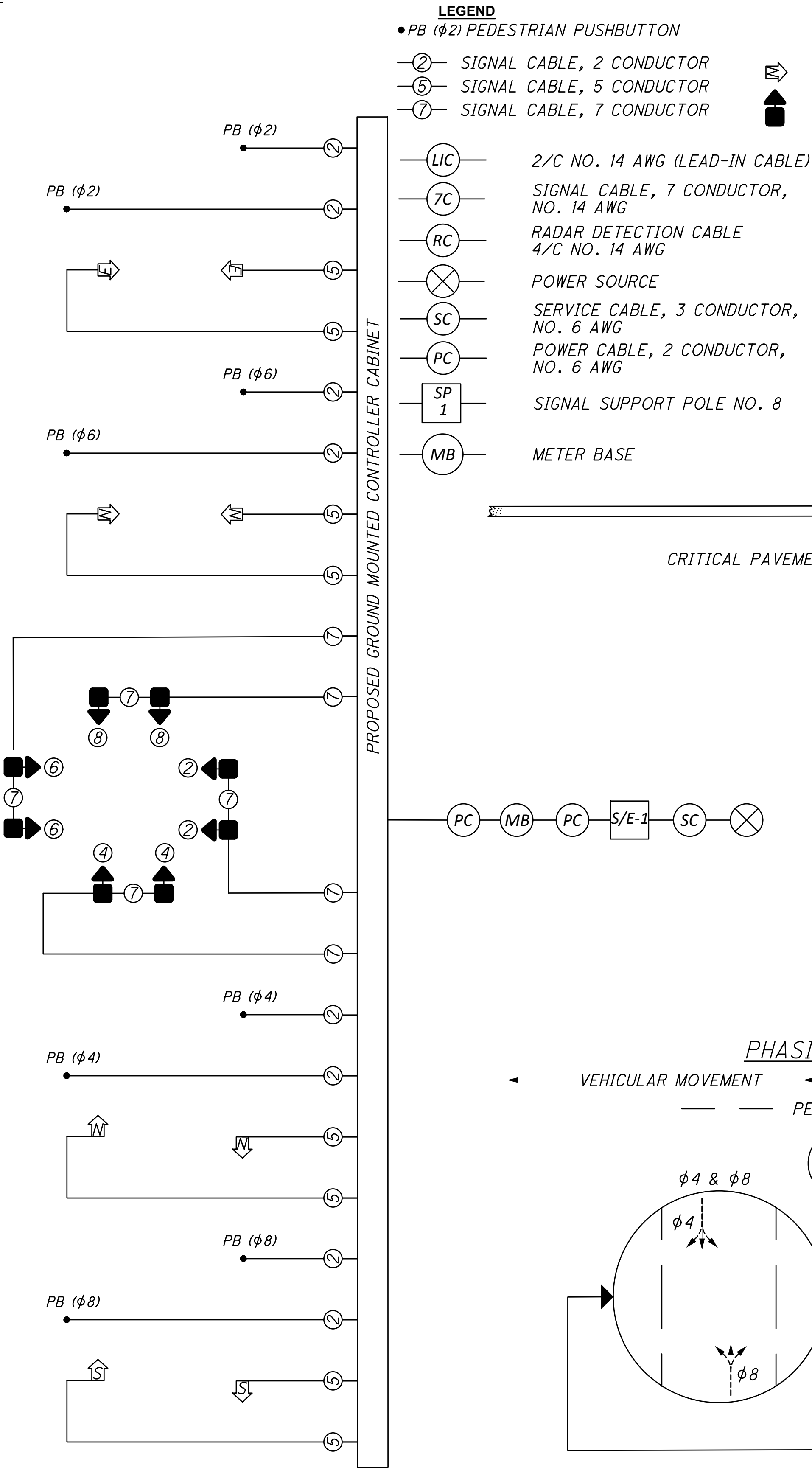
INTERSECTION	SHEET NO.	SUPPORT DESIGNATION	POLE COLOR / FEDERAL STANDARD 595B	POLE DESIGN NO.	POLE HT. (FT.)	MAST ARM LENGTH (FT.)	OBJECT ATTACHMENT HEIGHT			DISTANCE FROM BUTT PLATE (FT.)						POLE FABRICATION DATA - CLOCKWISE FROM MAST ARM A AT 0 DEGREES					FIELD ORIENTATION			
							MAST ARM (FT.)	RADAR DETECTOR (FT.)	BRACKET ARM	S-1	L-1	S-2	L-2	S-3	L-3	ANCHOR BOLT REFERENCE LINE	PED. SIGNALS	PED. PUSH BUTTON	BRACKET ARM	STREET NAME SIGNS	HANDHOLE	INDEX LINE ANGLE MAST ARM A	ANCHOR BOLT REFERENCE LINE	FOUNDATION ELEVATION
Main St. & Maple St.	78	NW-1	SEMI-GLOSS BLACK #27038		20	45.0	19.5	-	-	6.0	31.7	-	43.0	-	-	90	90	90	-	-	180	270	0	-
						34.9	19.5	-	-	6.0	20.9	-	32.9	-	-	-	0	0	-	-	-	0	-	-
	78	SE-1	SEMI-GLOSS BLACK #27038		25	44.9	19.5	-	-	6.0	30.9	-	42.9	-	-	90	90	90	-	-	180	270	0	-
						35.2	19.5	-	-	6.0	21.1	-	33.0	-	-	-	0	0	-	-	-	0	-	-



TYPICAL SIGNAL SUPPORT ORIENTATION DETAIL

FIELD WIRING HOOK-UP CHART

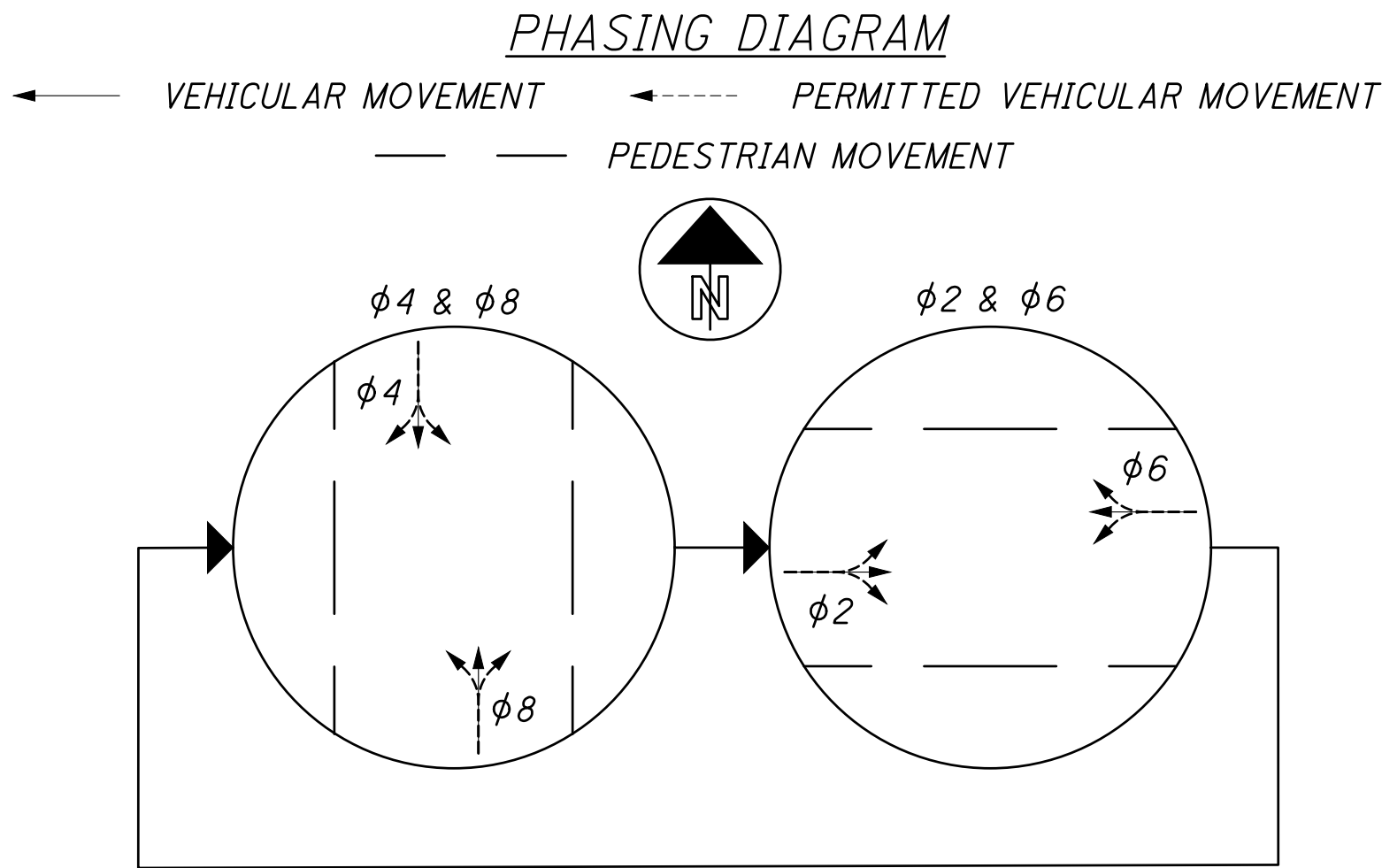
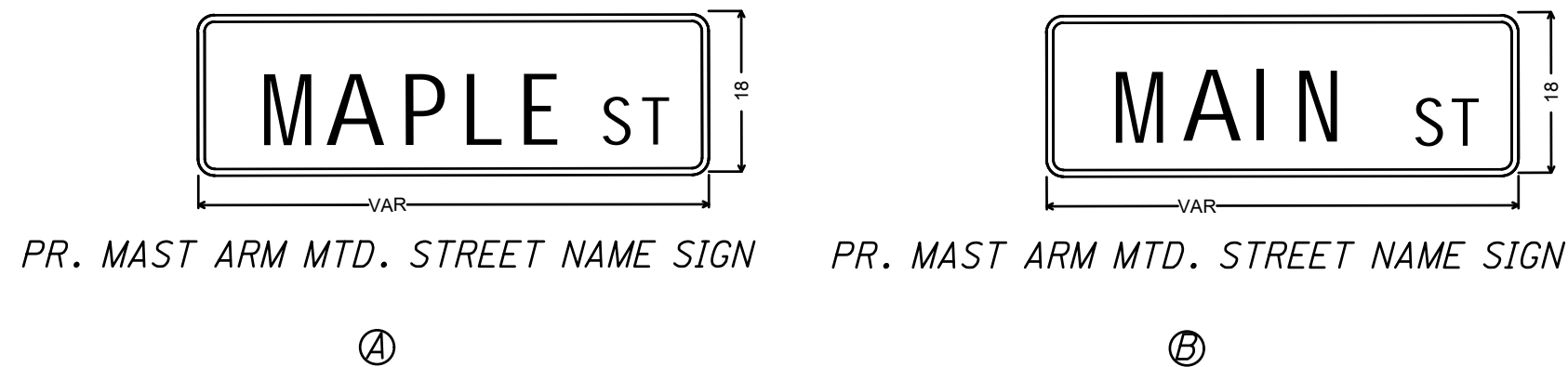
SIGNAL HEAD #	INDICATION	FIELD TERMINAL	FLASH
2(EB)	R	$\phi 2$ R	R
	Y	$\phi 2$ Y	
	G	$\phi 2$ G	
4(SB)	R	$\phi 4$ R	R
	Y	$\phi 4$ Y	
	G	$\phi 4$ G	
6(WB)	R	$\phi 6$ R	R
	Y	$\phi 6$ Y	
	G	$\phi 6$ G	
8(NB)	R	$\phi 8$ R	R
	Y	$\phi 8$ Y	
	G	$\phi 8$ G	
E(EAST)	WALK	G ( $\phi 2$ )-W	OFF
	DON'T WALK	R ( $\phi 2$ )-DW	
S(SOUTH)	WALK	G ( $\phi 4$ )-W	OFF
	DON'T WALK	R ( $\phi 4$ )-DW	
W(WEST)	WALK	G ( $\phi 6$ )-W	OFF
	DON'T WALK	R ( $\phi 6$ )-DW	
N(NORTH)	WALK	G ( $\phi 8$ )-W	OFF
	DON'T WALK	R ( $\phi 8$ )-DW	



- LEGEND
- PB ( $\phi 2$ ) PEDESTRIAN PUSHBUTTON
  - 2 SIGNAL CABLE, 2 CONDUCTOR
  - 5 SIGNAL CABLE, 5 CONDUCTOR
  - 7 SIGNAL CABLE, 7 CONDUCTOR
  - LIC 2/C NO. 14 AWG (LEAD-IN CABLE)
  - 7C SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG
  - RC RADAR DETECTION CABLE 4/C NO. 14 AWG
  - SC POWER SOURCE
  - SC SERVICE CABLE, 3 CONDUCTOR, NO. 6 AWG
  - PC POWER CABLE, 2 CONDUCTOR, NO. 6 AWG
  - SP 1 SIGNAL SUPPORT POLE NO. 8
  - MB METER BASE

ELEV. (A)  
CRITICAL PAVEMENT ELEVATION

SIGNAL SUPPORT ELEVATION  
(TYPICAL)



TOP OF SIGNAL SUPPORT AND PEDESTAL FOUNDATIONS SHALL BE LEVEL WITH THE SIDEWALK ELEVATION WHERE ADA LANDINGS ARE ADJACENT; ELSEWHERE, FOUNDATIONS SHALL BE 2" (± 1") ABOVE GRADE PER TC-21.21





GENERAL

1. THE STREET LIGHTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION AND LATEST REVISION OF THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (CMS) INCLUDING ALL SUPPLEMENTS THERETO, IN FORCE ON THE DATE OF THE CONTRACT, AND SHALL GOVERN ALL MATERIALS AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN ON THESE PLAN, EXCEPT AS SUCH SPECIFICATIONS ARE MODIFIED BY THE FOLLOWING MATERIAL INSTALLATION SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.

2. NO SPLICES SHALL BE MADE TO CIRCUIT CABLES EXCEPT AT NOTED LOCATIONS.

3. THE PLAN DETAILS SHALL BE CONSIDERED SUPPLEMENTAL TO ODOT CMS SPECIFICATIONS.

4. LIGHT POLE FOUNDATIONS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE DRAWINGS. UPON APPROVAL BY THE PROJECT ENGINEER, A LIGHT STANDARD MAY BE MOVED A MAXIMUM OF 5' PARALLEL WITH THE ROADWAY TO AVOID A POTENTIAL CONFLICT WITH EXISTING UTILITY LINES.

ITEM 625, LIGHT POLE, AESTHETIC, AS PER PLAN

IN ADDITIONAL TO THE REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATION 813 AND 913:

1. PRIOR TO ORDERING OF POLES, THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND PAINT CHIP SAMPLES TO THE CITY OF BAINBRIDGE FOR APPROVAL

2. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL NECESSARY LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO PROVIDE FOR ITEM 625, LIGHT POLE, AESTHETIC, AS PER PLAN. BASIS OF PAYMENT WILL BE AT THE CONTRACT BID PER EACH.

LIGHT POLES SHALL BE MANUFACURED BY:  
STERNBERG LIGHTING  
4200 AUGUSTA SERIES  
42-14-FP4-0.250-FCC-GFI IUC-GFI IB DBA SH BKT

PLASTIC CAUTION TAPE

THE CONTRACTOR SHALL PLACE CAUTION TAPE ABOVE ALL PROPOSED CONDUIT SO THAT IT IS 6" TO 8" BELOW THE FINISHED GRADE OF THE PROPOSED CONDUIT, PLACED WITH THE PRINTED SIDE UP AND PARALLEL TO FINISHED SURFACE. ENSURE THE TAPE IS NOT PULLED, DISTORTED, OR OTHERWISE MISPLACED IN COMPLETING THE TRENCH BACKFILL.

ITEM 625, TRENCH IN PAVED AREA, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF 625, TRENCH IN PAVED AREA, AS PER PLAN THE FOLLOWING REQUIREMENTS SHALL APPLY:

FOR TRENCHING WITHIN A SIDEWALK AREA:

THE CONCRETE FINISHING WORK FOR THIS PROJECT SHALL MATCH THE APPEARANCE OF THE ADJACENT SIDEWALK.

TO PERFORM NECESSARY TRENCHING CONCRETE WALK SHALL BE REMOVED BY SAWCUTTING AND REPLACED IN COMPLETE PANELS.

FOR TRENCHING THROUGH BRICK STREET AREAS, THE PAY ITEM WILL INCLUDE REMOVAL OF BRICK STREET, AND RESTORATION AS DESCRIBED BELOW:

CONDUIT SHALL BE CONCRETE ENCASED PER STD DWG HL-30-22.

ALL BRICK SHALL BE CAREFULLY REMOVED AND STORED FOR REUSE

AFTER PLACEMENT OF CONDUIT, BRICK STREET SHALL BE RESTORED TO EXISTING CONDITIONS

THE CONTRACTOR SHALL CONTACT THE CITY OF CHILLICOTHE ENGINEERING DEPARTMENT SHOULD ADDITIONAL BRICKS BE REQUIRED

PAYMENT FOR ITEM 625 TRENCH IN PAVED AREA, AS PER PLAN WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH LINEAR FOOT AND SHALL INCLUDE ALL REMOVAL AND RESTORATION OF BRICK STREET OR SIDEWALK

ITEM 625, LUMINAIRE, DECORATIVE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 813 AND 913:

1. LUMINAIRES FOR DECORATIVE LIGHTING UNITS SHALL BE 240 VOLT WITH LED LAMPS (2700K CCT) TYPE 5 DISTRIBUTION, AND SHALL BE POST TOP MOUNTED WITH AN ACRYLIC GLOBE.

2. THE LUMINAIRE SHALL HAVE A LUMEN OUTPUT BETWEEN 2,000 AND 3,000 LUMENS.

3. LUMINAIRES SUPPLIED SHALL INCLUDE ALL NECESSARY ADAPTERS TO FIT THE LIGHT POLE.

4. THE LUMINAIRE HOUSING SHALL BE PAINTED TO MATCH THE PROVIDED LIGHT POLE. PAINTING SHALL BE AS PER SUPPLEMENTAL SPECIFICATION 916.

5. SHALL BE MANUFACTURED BY:  
-STERNBERG LIGHTING SERIES MODEL A67LED YALE.

6. PRIOR TO ORDERING POLES, THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND PAINT CHIP SAMPLES TO THE CITY OF BAINBRIDGE FOR APPROVAL.

PAYMENT FOR THIS ITEM SHALL INCLUDE ALL NECESSARY LABOR, MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE FOR ITEM 625, LIGHT POLE, AESTHETIC, AS PER PLAN. BASIS OF PAYMENT WILL BE AT THE CONTRACT BID PER EACH.

ITEM 625, LUMINAIRE, CONVENTIONAL, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION 813 AND 913:

1. LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE 240 VOLT WITH LED LAMPS (4000K CCT) TYPE 3 DISTRIBUTION, AND SHALL BE BRACKET ARM MOUNTED.

2. THE LUMINAIRE SHALL HAVE A LUMEN OUTPUT BETWEEN 8,000 AND 9,000 LUMENS.

3. LUMINAIRES SUPPLIED SHALL INCLUDE ALL NECESSARY ADAPTERS TO FIT THE LIGHT POLE.

4. SHALL BE MANUFACTURED BY:  
-AMERICAN ELECTRIC LIGHTING  
MODEL-ATBM P05 R3 XXX VR  
OR APPROVED EQUAL

PAYMENT FOR THIS ITEM SHALL INCLUDE ALL NECESSARY LABOR, MATERIAL AND EQUIPMENT REQUIRED TO PROVIDE FOR ITEM 625, LIGHT POLE, CONVENTIONAL, AS PER PLAN. BASIS OF PAYMENT WILL BE AT THE CONTRACT BID PER EACH.

DESIGN AGENCY



DESIGNER

BS

REVIEWER

CR 06/06/25

PROJECT ID

2024.02405

SHEET

P.48

TOTAL

70



SHEET NO	SIDE														
		POLE/PULL BOX NO.	CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED PERMANENT	LIGHT POLE, AESTHETIC, AS PER PLAN	LIGHT POLE, CONVENTIONAL, AS PER PLAN	LIGHT POLE FOUNDATION, 24"X6' DEEP	NO.6AWG 600 VOLT DISTRIBUTION CABLE	NO. 10 AWG 600 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	CONDUIT, 2" 725.051	TRENCH	GROUND ROD	UNDERGROUND WARNING/MARKING TAPE	POWER SERVICE
P.050	RT	A2	3			1	1			9					
P.050	RT	A2-A4						686							
P.050	RT	A4	3			1	1			9					
P.050	RT	A4-A6						779							
P.050	RT	A6	3			1	1			9					
P.050	RT	A6-AR1						257							
P.051	RT	AR1	3												
P.051	RT	AR1-A8						53							
P.051	RT	A8	3			1	1			9					
P.051	RT	AR1-A10						504							
P.051	RT	A10	3			1	1			9					
P.051	RT	A10-A12						749							
P.051	RT	A12	3			1	1			9					
P.051	RT/LT	A12-AR2						185							
P.051	LT	AR2	3												
P.051	LT	AR2-AR3						63							
P.051	LT	AR3	3												
P.051	LT	AR3-A11						79							
P.051	LT	A11	3			1	1			9					
P.051	LT	AR3-A13						244							
P.051	LT	A13	3			1	1			9					
P.051	LT/RT	A13-A14						273							
P.051	RT	A14	3			1	1			9					
P.051	LT	AR2-A9						294							
P.051	LT	A9	3			1	1			9					
P.051	LT	A9-Power Service						367		9	101.00				
P.051	LT	A9-A7						903							
P.051	LT	A7	3			1	1			9					
P.051	LT	A7-AR4						245							
P.051	LT	AR4	3												
P.051	LT	AR4-A5						91							
P.051	LT	A5	3			1	1			9					
P.051	LT	AR4-A3						487							
P.050	LT	A3	3			1	1			9					
P.050	LT	A3-A1						755							
P.050		A1	3			1	1			9					
P.051	LT	P4	2	1	1		1								
P.051	LT	P4-P3							207	14	36	36		36	
P.051	LT	P3	2	1	1		1								
P.051	LT	P3-P2							216	14	54	54		54	
P.051	LT	P2	2	1	1		1								
P.051	LT	P2-P1							165	14	41	41		41	
P.051	LT	P-1													
P.051	LT	P1-P8							165	14	41	41		41	
P.051	LT	P8	2	1	1		1								
P.051	LT	P8-P7							165	14	41	41		41	
P.051	LT	P7	2	1	1		1								
P.051	LT	P7-P6							216	14	53	53		53	
P.051	LT	P6	2	1	1		1								
P.051	LT	P6-P5							168	14	36	36		36	
P.051	LT	P5	2	1	1		1								
P.051	LT	P5-Power Service							258	14	43	43		43	
P.051	LT	Power Service	2	1									1		1
P.051	LT	Power Service-P9							57	14	5	5		5	
P.051	LT	P9	2	1	1		1								
P.051	LT	P9-P10							168	14	42	42		42	
P.051	LT	P10	2	1	1		1								
P.051	LT	P10-P11							87	14	15	15		15	
P.051	LT	P11	2	1	1		1								
P.051	LT	P11-P12							195	14	51	51		51	
P.051	LT	P12	2	1	1		1								
P.051	LT	P12-P13							252	14	70	70		70	
P.051	LT	P13	2	1	1		1								
ALS CARRIED TO GENERAL SUMMARY		0	80	13	12		26	7015		317	627	526	1	526	1

QUANTITY SUMMARY

DESIGN AGENCY



DESIGNER

BS

REVIEWER

CR 06/06/25

PROJECT ID

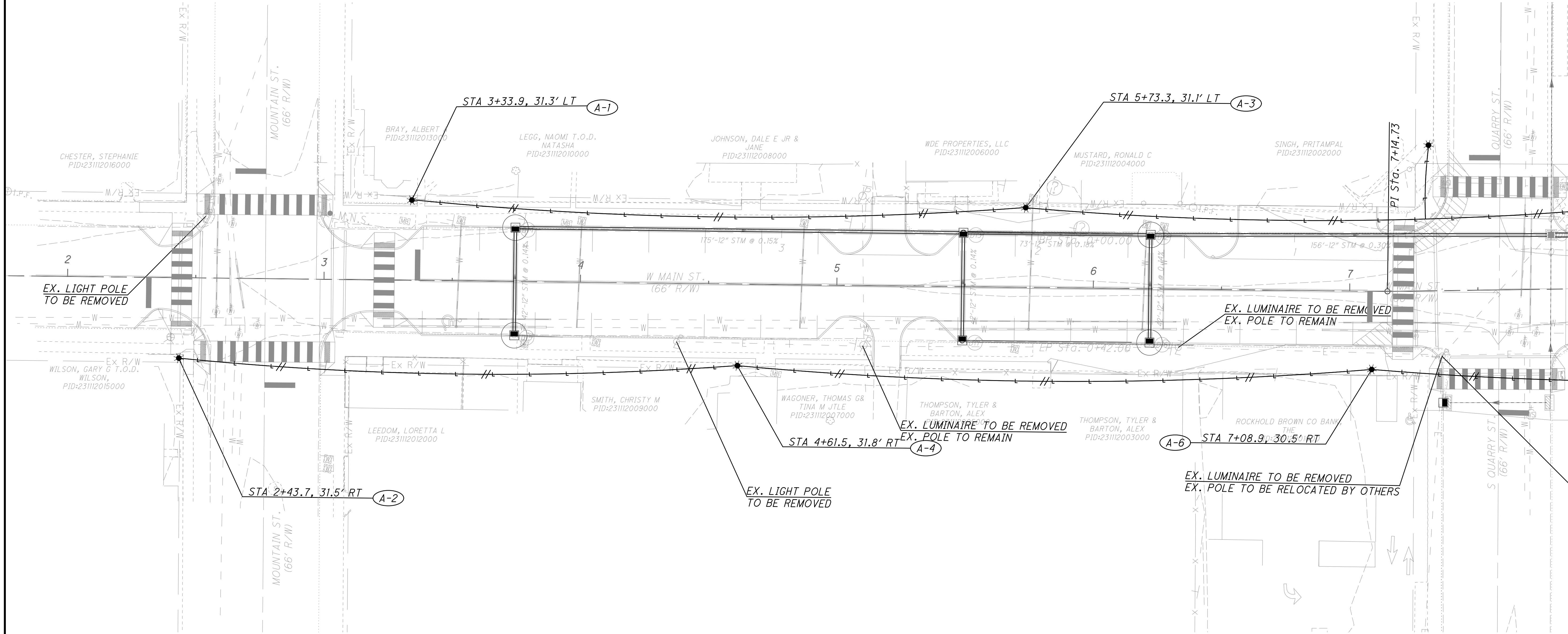
2024.02405

SHEET

P.49

TOTAL

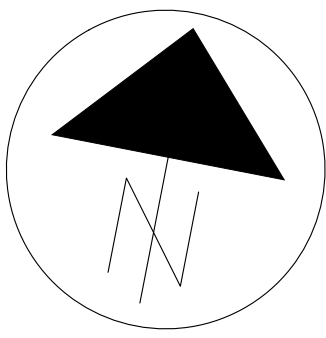
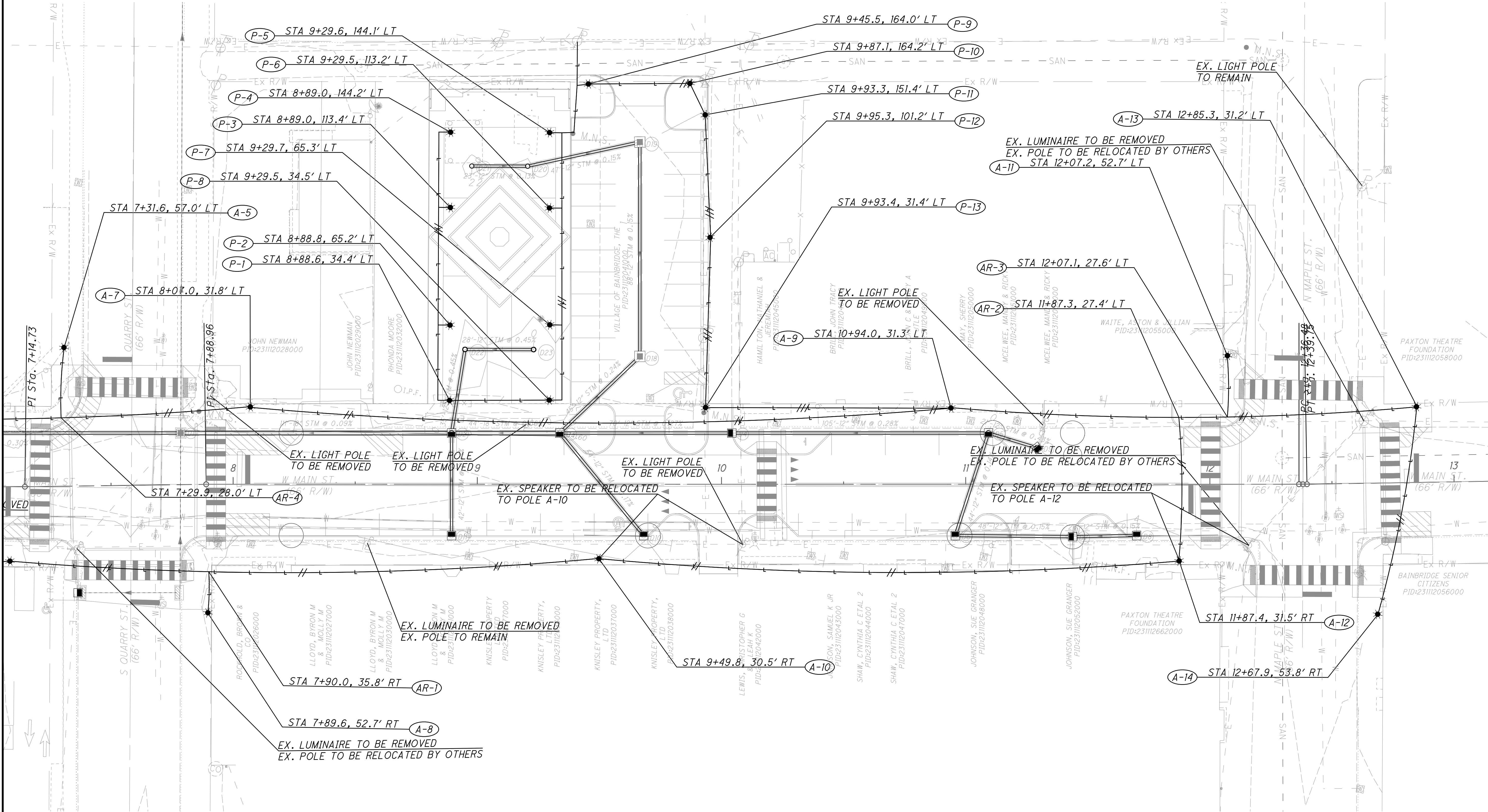
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LIGHTING PLAN

DESIGN AGENCY	
AMERICAN STRUCTUREPOINT INC	
DESIGNER	BS
REVIEWER	CR 06/06/25
PROJECT ID	2024.02405
SHEET	TOTAL
P. 50	70







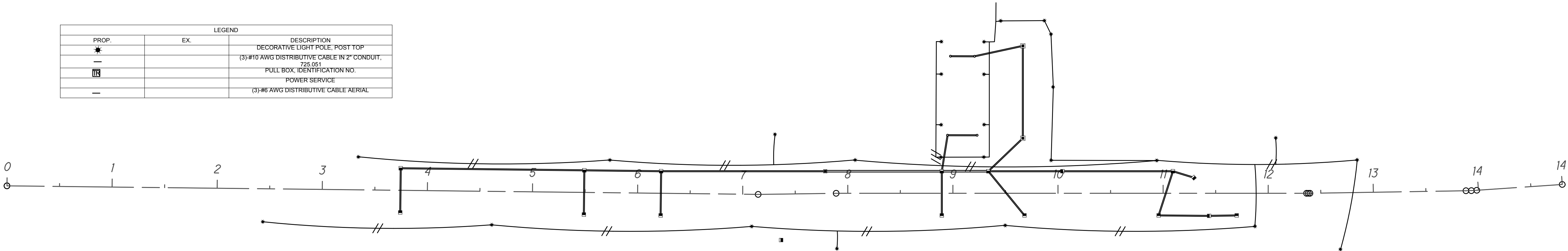


**HORIZONTAL  
SCALE IN FEET**

# LIGHTING PLAN

DESIGN AGENCY <b>AMERICAN STRUCTUREPOINT INC.</b>	
DESIGNER BS	
REVIEWER CR 06/06/25	
PROJECT ID 2024.02405	
SHEET P. 51	TOTAL 70

LEGEND		
PROP.	EX.	DESCRIPTION
		DECORATIVE LIGHT POLE, POST TOP
		(3)#10 AWG DISTRIBUTIVE CABLE IN 2" CONDUIT, 725.051
		PULL BOX, IDENTIFICATION NO.
		POWER SERVICE
		(3)#6 AWG DISTRIBUTIVE CABLE AERIAL



CONTROL CENTER DATA									
CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
ROAD	120	1.0	6	60	A	7.93	20	6	City of Bainbridge
					-	-	-	-	
					-	-	-	-	

POWER SERVICE									
CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
PARK	120	0.3	6	60	P	2.90	20	10	City of Bainbridge
					-	-	-	-	
					-	-	-	-	

### Main St Circuit A

Voltage:	120	Volts
Number Wire System:	3	WIRE

- L1 (480V) -  
- N -  
- G -

Line Volts  
120

Circuit A													
Section				Watts	Current (Amps)		Ampere-Feet	Wire Gage	Wire Resistance (Ohms/1000 FT)	Voltage Drop		% Drop	At Point
From	To	Dist. (ft)	Dist. + Slack (ft)	At Point	At Point	Accum.				In Section	Accum.		
Service	A9	367	382	68	0.567	7.933	6061.066667	6	0.4105	2.488	2.488	2.07%	Service
A9	A11	140	155	68	0.567	1.700	527	6	0.4105	0.216	2.704	2.25%	A9
A11	A13	78	93	68	0.567	1.133	210.8	6	0.4105	0.087	2.791	2.33%	A11
A13	A14	87	102	68	0.567	0.567	115.6	6	0.4105	0.047	2.838	2.37%	A13
A9	A12	153	168	68	0.567	3.400	1142.4	6	0.4105	0.469	2.957	2.46%	A9
A12	A10	238	253	68	0.567	2.833	1433.666667	6	0.4105	0.589	3.546	2.95%	A12
A10	A8	177	192	68	0.567	2.267	870.4	6	0.4105	0.357	3.903	3.25%	A10
A8	A6	82	97	68	0.567	1.700	329.8	6	0.4105	0.135	4.038	3.37%	A8
A6	A4	248	263	68	0.567	1.133	596.1333333	6	0.4105	0.245	4.283	3.57%	A6
A4	A2	218	233	68	0.567	0.567	264.0666667	6	0.4105	0.108	4.391	3.66%	A4
A9	A7	287	302	68	0.567	2.267	1369.066667	6	0.4105	0.562	3.050	2.54%	A9
A7	A5	107	122	68	0.567	1.700	414.8	6	0.4105	0.170	3.220	2.68%	A7
A5	A3	156	171	68	0.567	1.133	387.6	6	0.4105	0.159	3.379	2.82%	A5
A3	A1	240	255	68	0.567	0.567	289	6	0.4105	0.119	3.498	2.92%	A3
			Total =										
			A	952	7.933					MAX VOLTAGE DROP:	A	4.391	3.66%

Lamp Wattage	Wattage	Driver/ Ballast Amps	Line Amps, Operating		
			Volts		
			120	240	480
Leotek Electronics- GCM1-60J-MV-30K-3R-XX-090	68	n/a	0.567	0.283	0.142

Voltage Drop = (Amperes Accum.) \* [(Length of section \* 2wires)/1000] \* Resistance wire per 1000 f  
Allow 5 to 10 ft allowance per connection or round up to the nearest 5 ft.

### Park Circuit P

Voltage:	120	Volts
Number Wire System:	3	WIRE

- L1 (480V)
- N -
- G -

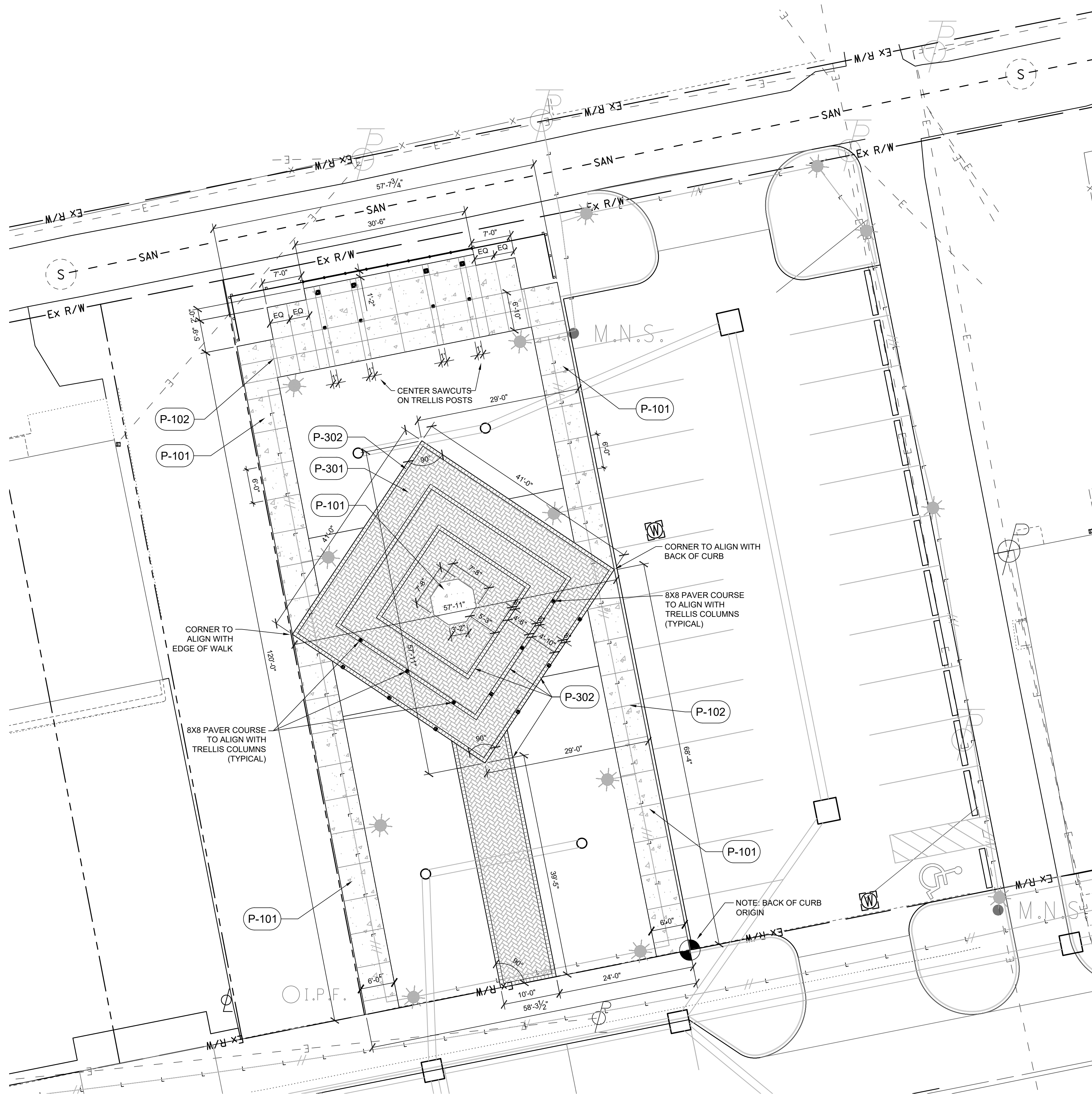
Line Volts  
120[illegible]

VDOT TEDM says 3% max voltage drop to allow for expansion & field modifications. Assume no expansion on this project, so go slightly beyond 3%

Lamp Wattage	Wattage	Driver/ Ballast Amps	Line Amps, Operating		
			Volts		
			120	240	480
Sternberg lighting A670TSRLED - 12L40T5-MDL008	26.8	n/a	0.223	0.112	0.056

Voltage Drop = (Amperes Accum.) \* [(Length of section \* 2wires)/1000] \* Resistance wire per 1000 ft  
Allow 5 to 10 ft allowance per connection or round up to the nearest 5 ft.

Obtain wire resistance from published data	
Wire Size	ohms per 1000 ft
10	1.0380



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- A MINIMUM OF 4" OF PLANTING SOIL, 4" TOPSOIL, 4" MULCH AND SOIL CONDITIONER SHALL BE PLACED ON ALL AREAS TO BE SEEDED, SODDED AND PLANTED. PLANTING SOIL MIX SHALL BE FREE FROM SUBSOIL, VEGETATION, WEEDS OR ANY EXTRANEUS OR DELETERIOUS MATERIALS LARGER THAN 1". REMOVE ANY UNSUITABLE AND EXCESS EXISTING TOPSOIL, AS DETERMINED BY SOILS ENGINEER, FROM THE SITE. FURNISH ANY ADDITIONAL SOIL AS NEEDED AT NO ADDITIONAL COST. ADDED PLANTING SOIL IS TO BE INCORPORATED INTO EXISTING.
- IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE. IF IN QUESTION, CONTACT THE LANDSCAPE ARCHITECT.
- ALL PLANTING BEDS SHALL HAVE A 3" THICK LAYER OF SHREDDED HARDWOOD BARK MULCH. NO UTILITY MULCH OR PROCESSED TREE TRIMMINGS WILL BE ALLOWED. ALL PLANTING BEDS SHALL HAVE PRE-EMERGENT HERBICIDE APPLIED AS PER MANUFACTURER'S RECOMMENDATION, AFTER INSTALLATION IS COMPLETE.
- FINAL PLACEMENT OF PLANT MATERIALS, ETC. SHALL BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE PLANTING OPERATIONS ARE TO PROCEED. ALL TREE LOCATIONS SHALL BE MARKED WITH A WOODEN STAKE INDICATING VARIETY AND SIZE OF TREE.
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- PLANTINGS SHOULD BE INSTALLED BETWEEN APRIL 1ST AND MAY 31ST, OR BETWEEN SEPTEMBER 1ST AND OCTOBER 31ST TO AVOID UNFAVORABLE WEATHER CONDITIONS. LANDSCAPE AND TURF PLANTED OUTSIDE OF THESE PERIODS WILL REQUIRE ADDITIONAL MEASURES TO MAINTAIN ACCEPTABLE HEALTH AT NO ADDITIONAL COST TO THE CLIENT.
- PLANTS AND ALL OTHER MATERIALS TO BE STORED ON SITE WILL BE PLACED WHERE THEY WILL NOT CONFLICT WITH CONSTRUCTION AND AS DIRECTED BY OWNER.
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- ALL DISTURBED LAWN AREAS SHALL BE SEEDED OR SODDED AS SHOWN PER THE LANDSCAPE AND EROSION CONTROL PLANS.
- LAWN AND SOD AREAS ARE TO BE GRADED UNIFORMLY WITHOUT ANY UNDULATIONS OR IRREGULARITIES IN THE SURFACE PRIOR TO ANY SEED OR SOD WORK.
- ALL LAWN IS TO BE A BLEND PER THE PLANT SCHEDULE. SEED AREAS ARE TO HAVE 0% NOXIOUS WEED AND FREE OF DISEASE.
- PROTECT LAWN SEEDED AREAS WITH STRAW MULCH. SPREAD MULCH UNIFORMLY AT A MINIMUM RATE OF 2 TONS PER ACRE TO FORM A CONTINUOUS BLANKET 1 1/2 INCHES IN LOOSE THICKNESS OVER SEEDED AREAS.
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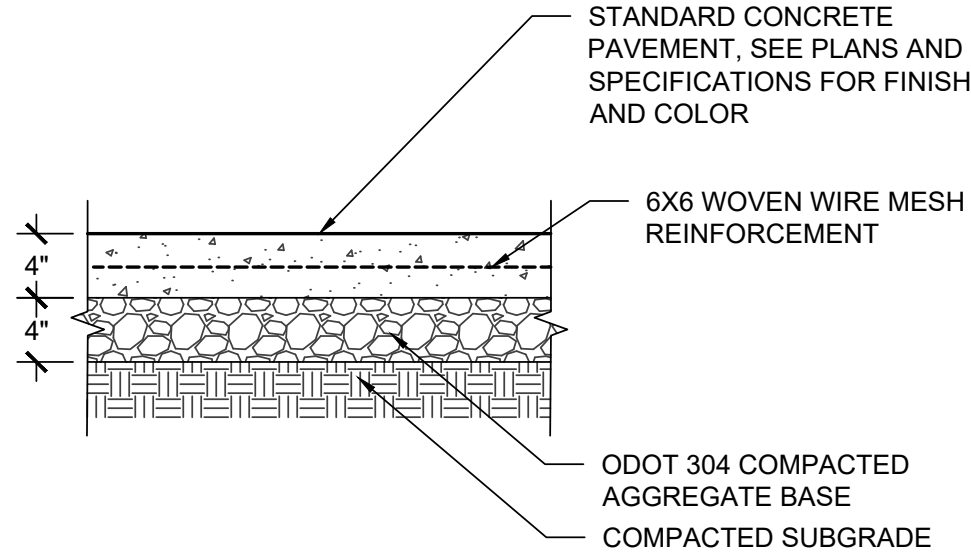
## PAVING SCHEDULE

CODE	DESCRIPTION	QTY	DETAIL
CONCRETE			
P-101	4" CIP CONCRETE, SAWCUT CONTROL JOINTS, LOCATE AND ORIENT AS INDICATED, LIGHT BROOM FINISH, SEE DETAIL AND SPECIFICATIONS	2,044 sf	4/54
P-102	CONTROL JOINT, (TYP) LOCATE AND ORIENT AS INDICATED, SEE DETAIL		5/54
UNIT PAVING			
P-301	PAVER FIELD, HERRINGBONE PATTERN, BELDEN 470-479 MEDIUM RANGE, SMOOTH PAVERS, SEE DETAIL AND SPECIFICATIONS	1,689 sf	1/54
P-302	PAVER SOLDIER COURSE, BELDEN SANDHILL 8X8 PAVER, SEE DETAIL AND SPECIFICATIONS	667 sf	1/54

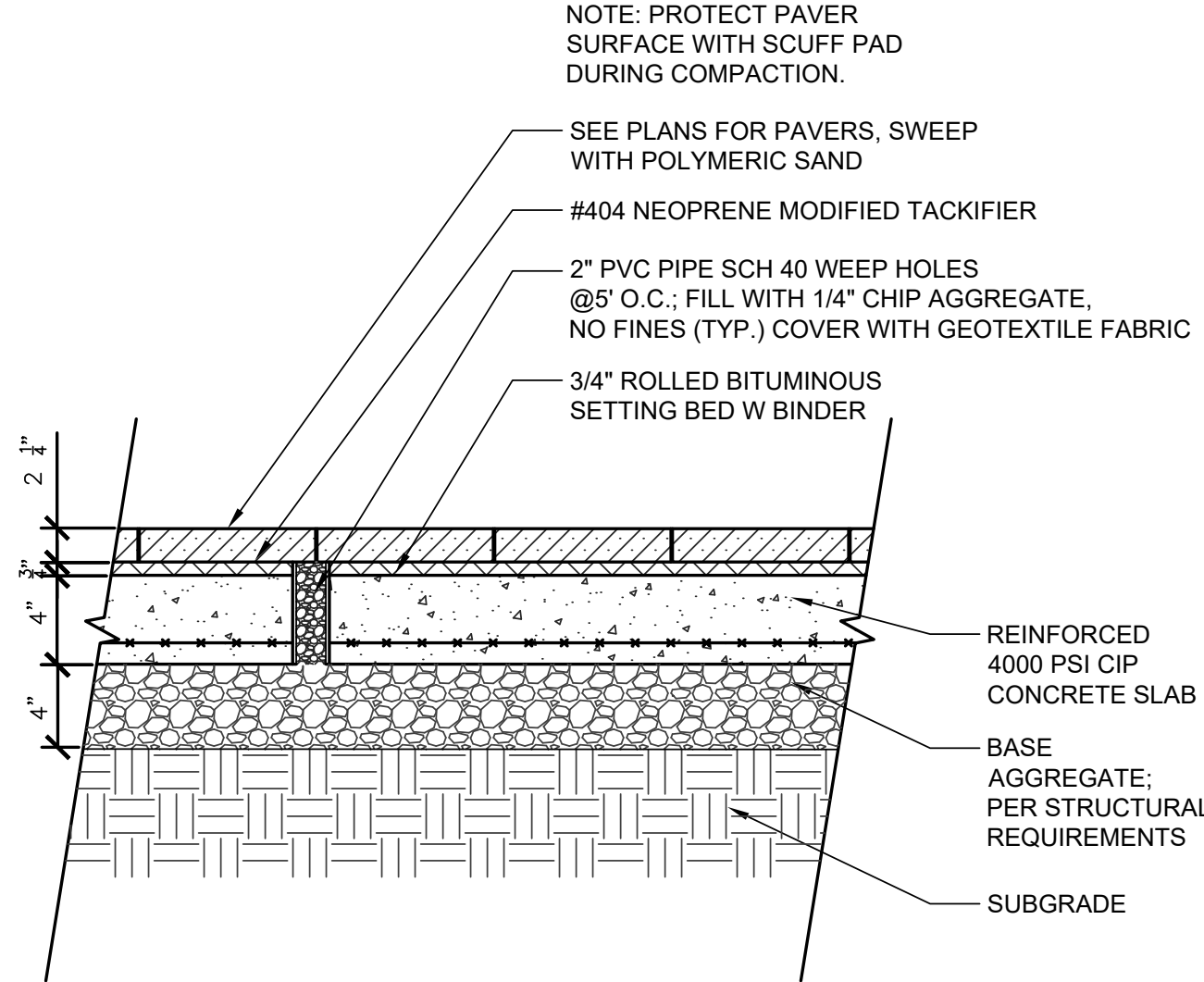
GEOTECHNICAL REPORT INDICATES THAT UNDOCUMENTED FILL AND BURIED STRUCTURES WERE ENCOUNTERED THROUGHOUT THE SITE. WHERE A BURIED STRUCTURE IS FOUND DURING CONSTRUCTION, COMPLETE REMOVAL IS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. REPLACE WITH STRUCTURAL FILL MATERIAL AS OUTLINED IN THE GEOTECHNICAL REPORT.



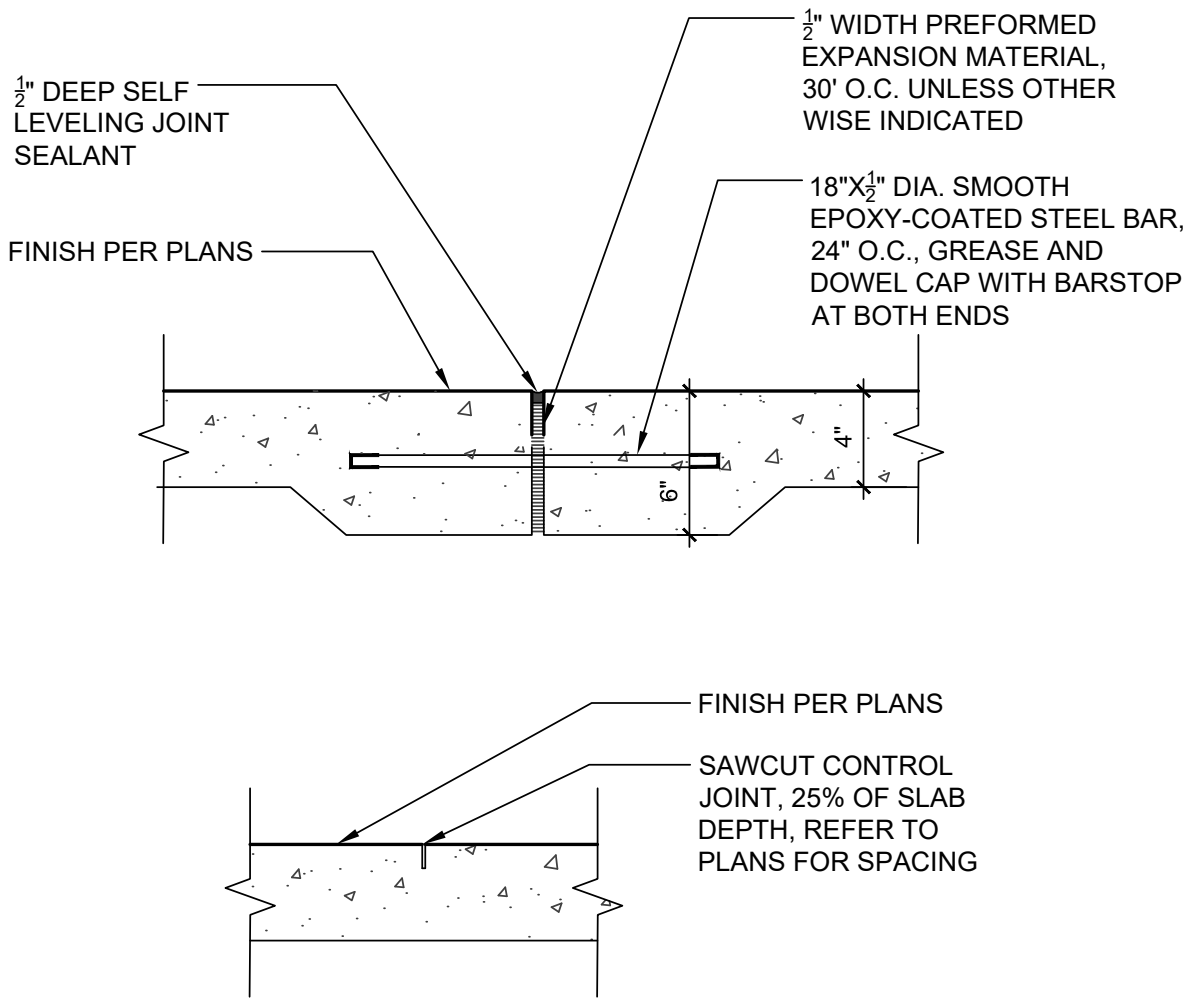
4 STANDARD CONCRETE  
1" = 1'-0"



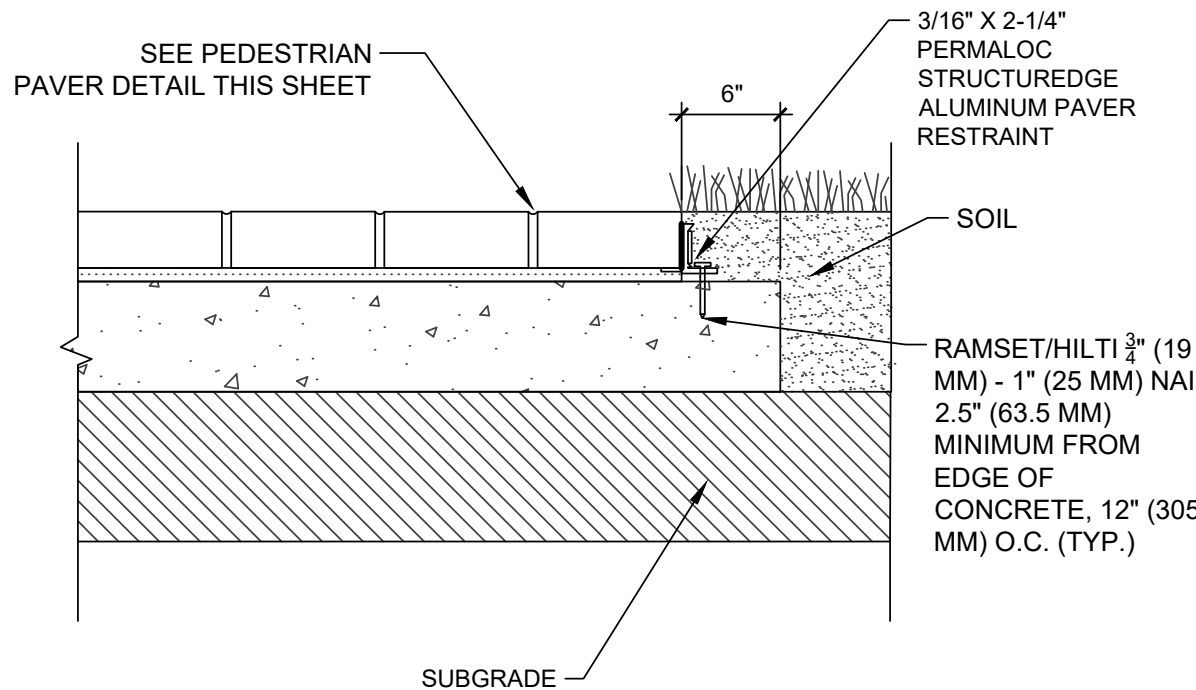
1 PEDESTRIAN PAVER INSTALLATION  
1" = 1"



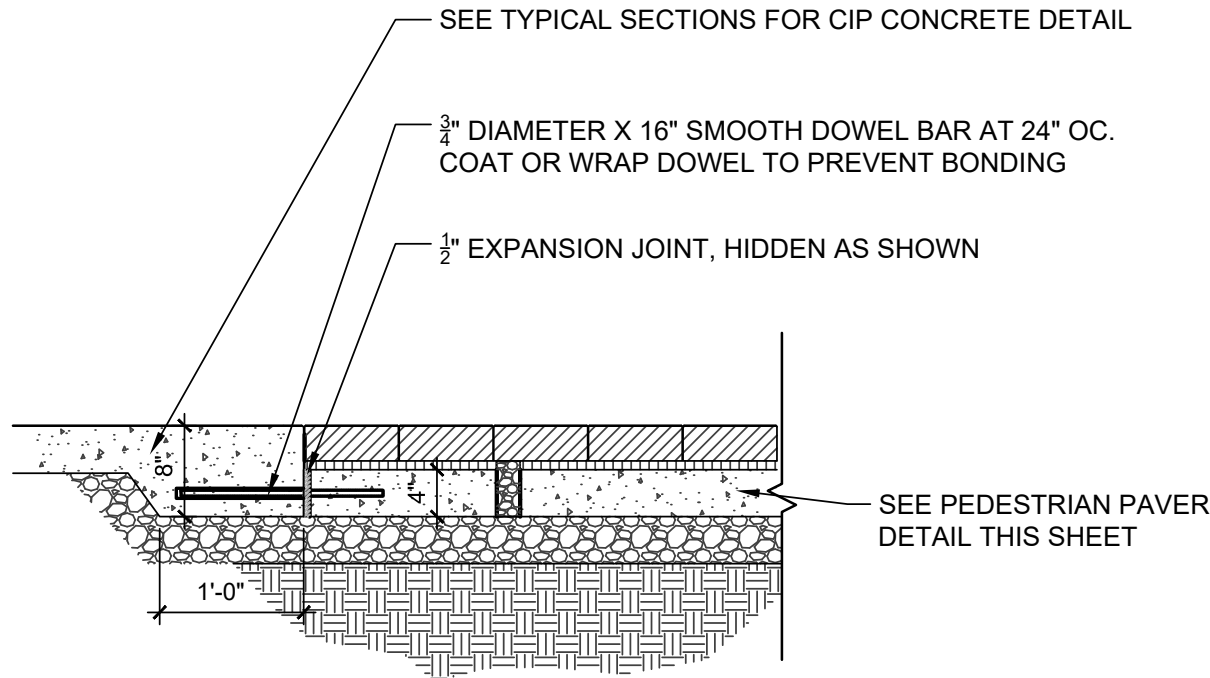
5 CONTROL AND EXPANSION JOINTS  
1 1/2\"/>

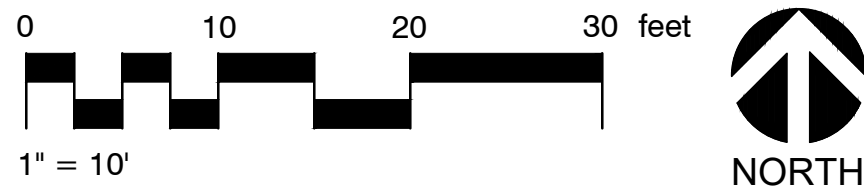
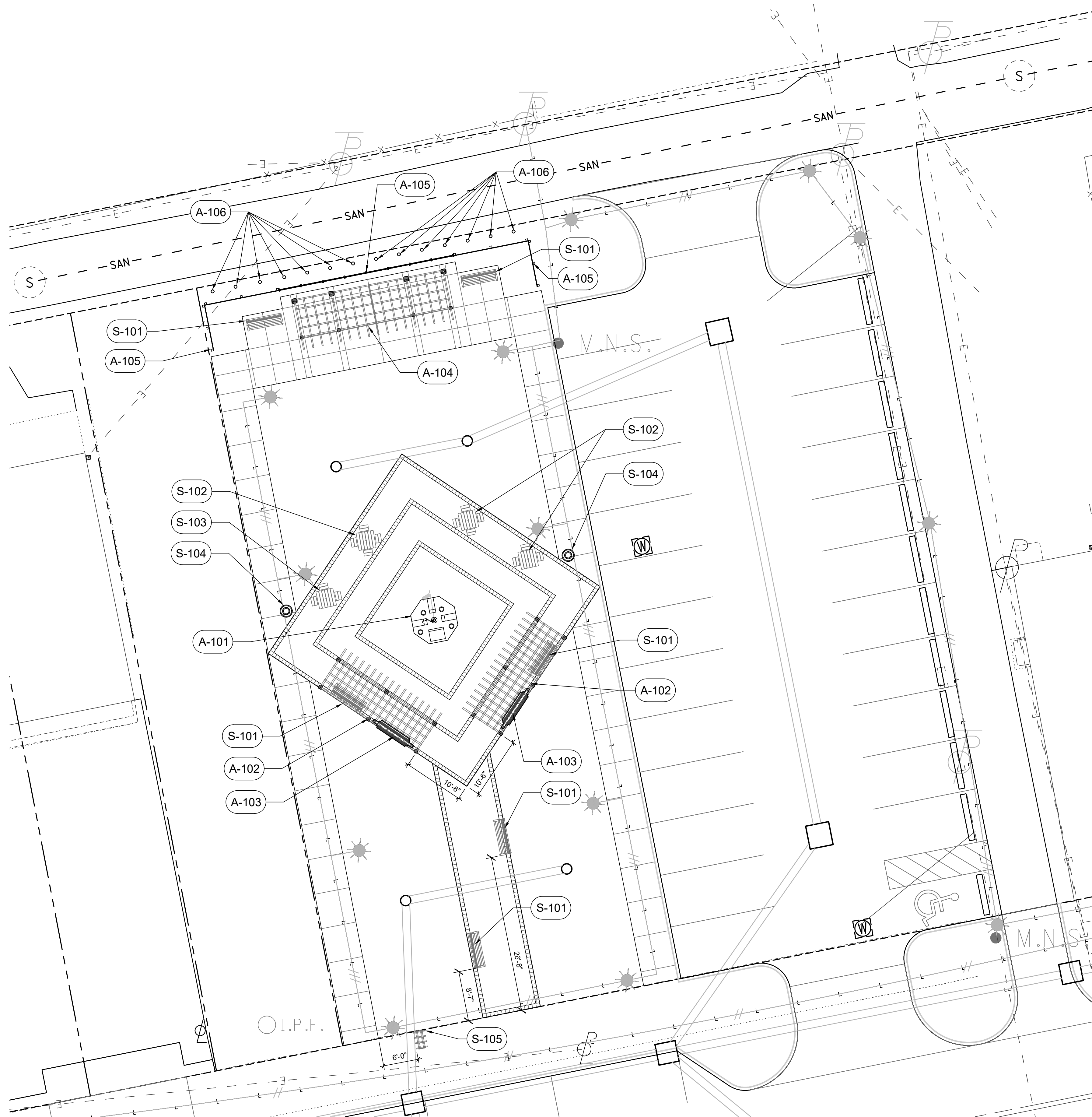


2 PAVERS ABUT PLANTING EDGE  
3/4\"/>



3 PAVERS ABUT CONCRETE  
3/4\"/>





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## REFERENCE NOTES SCHEDULE

CODE	DESCRIPTION	DETAIL
AMENITY		
A-101	MONUMENT, INCLUDES FLAGPOLE, PRECAST CONCRETE PILLARS (TYP OF 3), AND MARBLE TABLET, LOCATE AND ORIENT AS INDICATED, SEE BASIS OF DESIGN AND ASSOCIATED DETAILS ON SHEET 57	01/57
A-102	SMALL ALUMINUM TRELLIS, (TYPICAL OF 2), SEE SMALL TRELLIS BASIS OF DESIGN AND ASSOCIATED DETAILS ON SHEET 56, BID AS ALTERNATE 1	01/56
A-103	SWINGING BENCH, MAGLIN MOP-9000-00388 (BASE BID =TYP OF 2, ALTERNATE BID = ADDITIONAL 2 SWINGS TO REPLACE BENCHES), SEE DETAIL SHEET 56 AND SPECIFICATIONS, 4 SWINGS BASE BID. IF ALTERNATE 3 IS SELECTED SWING COUNT GOES FROM 4 TO 2	5/56
A-104	LARGE ALUMINUM TRELLIS, (TYPICAL OF 1), SEE LARGE TRELLIS BASIS OF DESIGN AND ASSOCIATED DETAILS ON SHEET 59, BID AS ALTERNATE 2	6/59
A-105	SCREEN FENCE, SEE SCREEN FENCE BASIS OF DESIGN AND ASSOCIATED DETAILS ON SHEET 59	01/59
A-106	STEEL PIPE BOLLARD, BLACK, LOCATE AND ORIENT AS INDICATED, SEE DETAIL AND SPECIFICATIONS	6/56
SITE FURNISHINGS		
S-101	BENCH, MAGLIN MBE-0720-00137, BLACK, SURFACE MOUNT, LOCATE AND ORIENT AS INDICATED, SEE SPECIFICATIONS	
S-102	CLUSTER SEATING, MAGLIN MTB-0400-00062, BLACK, SURFACE MOUNT, LOCATE AND ORIENT AS INDICATED, SEE SPECIFICATIONS	
S-103	ACCESSIBLE CLUSTER SEATING, MAGLIN MTB-0400-00065, BLACK, SURFACE MOUNT, LOCATE AND ORIENT AS INDICATED, SEE SPECIFICATIONS	
S-104	32 GAL. TRASH CONTAINER, MAGLIN MTR-0200-00020, BLACK, SURFACE MOUNT, LOCATE AND ORIENT AS INDICATED, SEE SPECIFICATIONS	
S-105	BIKE RACK, MAGLIN MBR-0350-00001, BLACK, SURFACE MOUNT, LOCATE AND ORIENT AS INDICATED, SEE SPECIFICATIONS	

## BID ALTERNATES:

- ADD TWO SMALL TRELLISES A-102
- ADD LARGE TRELLIS
- CHANGE 2 SWINGS A-103 TO 2 BENCHES S101

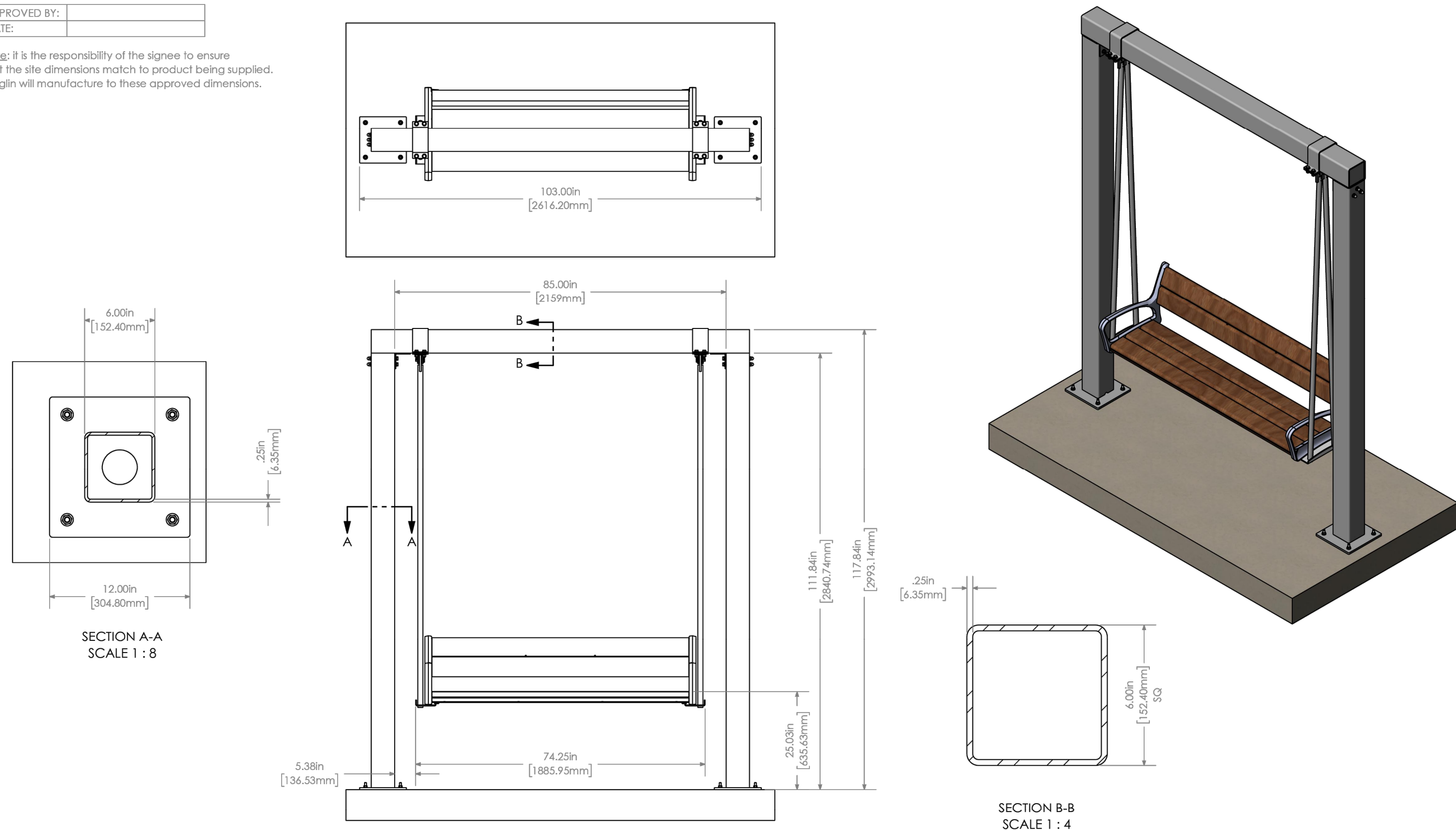
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NOTE: BASIS OF DESIGN ONLY. FOOTERS TO BE COORDINATED. CONTRACTOR TO SUBMIT STRUCTURAL ENGINEERED STAMPED DRAWINGS TO BE REVIEWED BY THE OWNER/ARCHITECT

APPROVED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

Note: It is the responsibility of the signee to ensure that the site dimensions match to product being supplied. Maglin will manufacture to these approved dimensions.



WWW.MAGLIN.COM

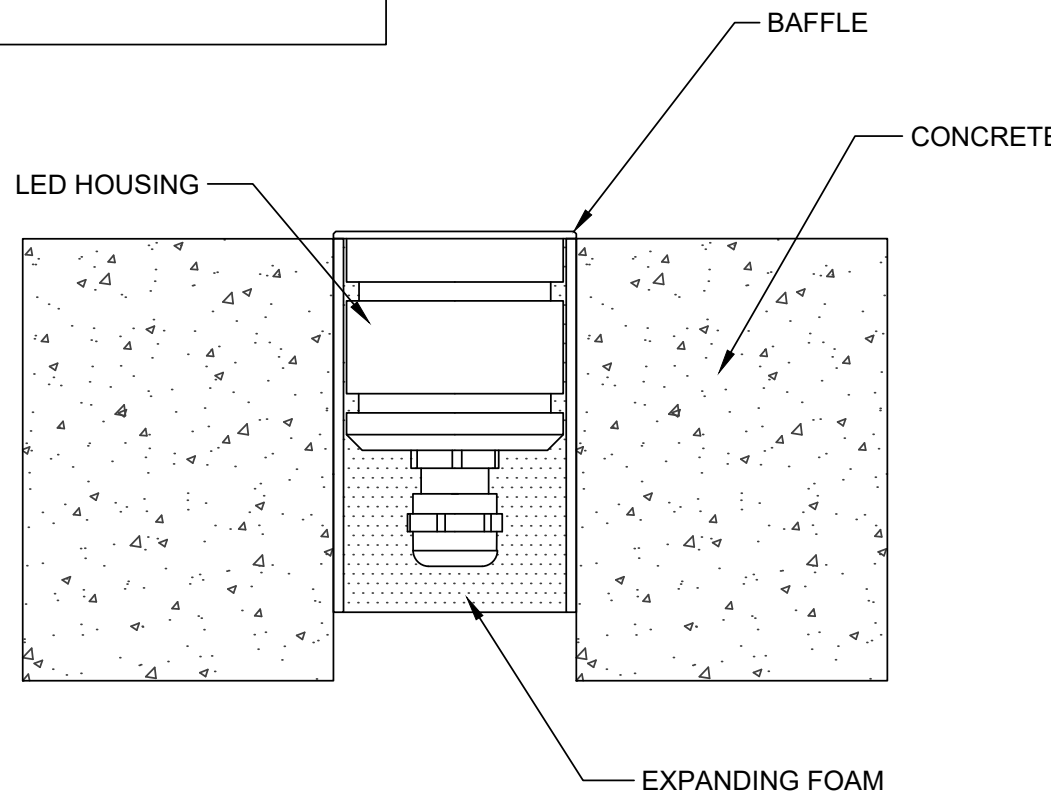
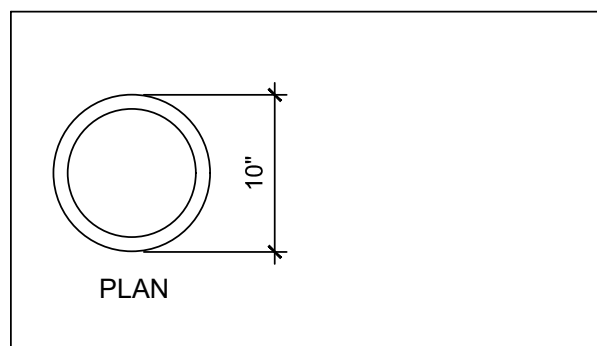
3RD ANGLE  
MANUFACTURING TOLERANCES  
UNLESS OTHERWISE SPECIFIED:  
UNITS: INCHES  
FRACTIONS: 1/4 1/2 3/4  
DECIMALS: 0.125 0.250 0.375 0.500 0.625 0.750 0.875 1.000 1.125 1.250 1.375 1.500 1.625 1.750 1.875 2.000 2.125 2.250 2.375 2.500 2.625 2.750 2.875 3.000 3.125 3.250 3.375 3.500 3.625 3.750 3.875 4.000 4.125 4.250 4.375 4.500 4.625 4.750 4.875 5.000 5.125 5.250 5.375 5.500 5.625 5.750 5.875 6.000 6.125 6.250 6.375 6.500 6.625 6.750 6.875 7.000 7.125 7.250 7.375 7.500 7.625 7.750 7.875 8.000 8.125 8.250 8.375 8.500 8.625 8.750 8.875 9.000 9.125 9.250 9.375 9.500 9.625 9.750 9.875 10.000 10.125 10.250 10.375 10.500 10.625 10.750 10.875 11.000 11.125 11.250 11.375 11.500 11.625 11.750 11.875 12.000 12.125 12.250 12.375 12.500 12.625 12.750 12.875 13.000 13.125 13.250 13.375 13.500 13.625 13.750 13.875 14.000 14.125 14.250 14.375 14.500 14.625 14.750 14.875 15.000 15.125 15.250 15.375 15.500 15.625 15.750 15.875 16.000 16.125 16.250 16.375 16.500 16.625 16.750 16.875 17.000 17.125 17.250 17.375 17.500 17.625 17.750 17.875 18.000 18.125 18.250 18.375 18.500 18.625 18.750 18.875 19.000 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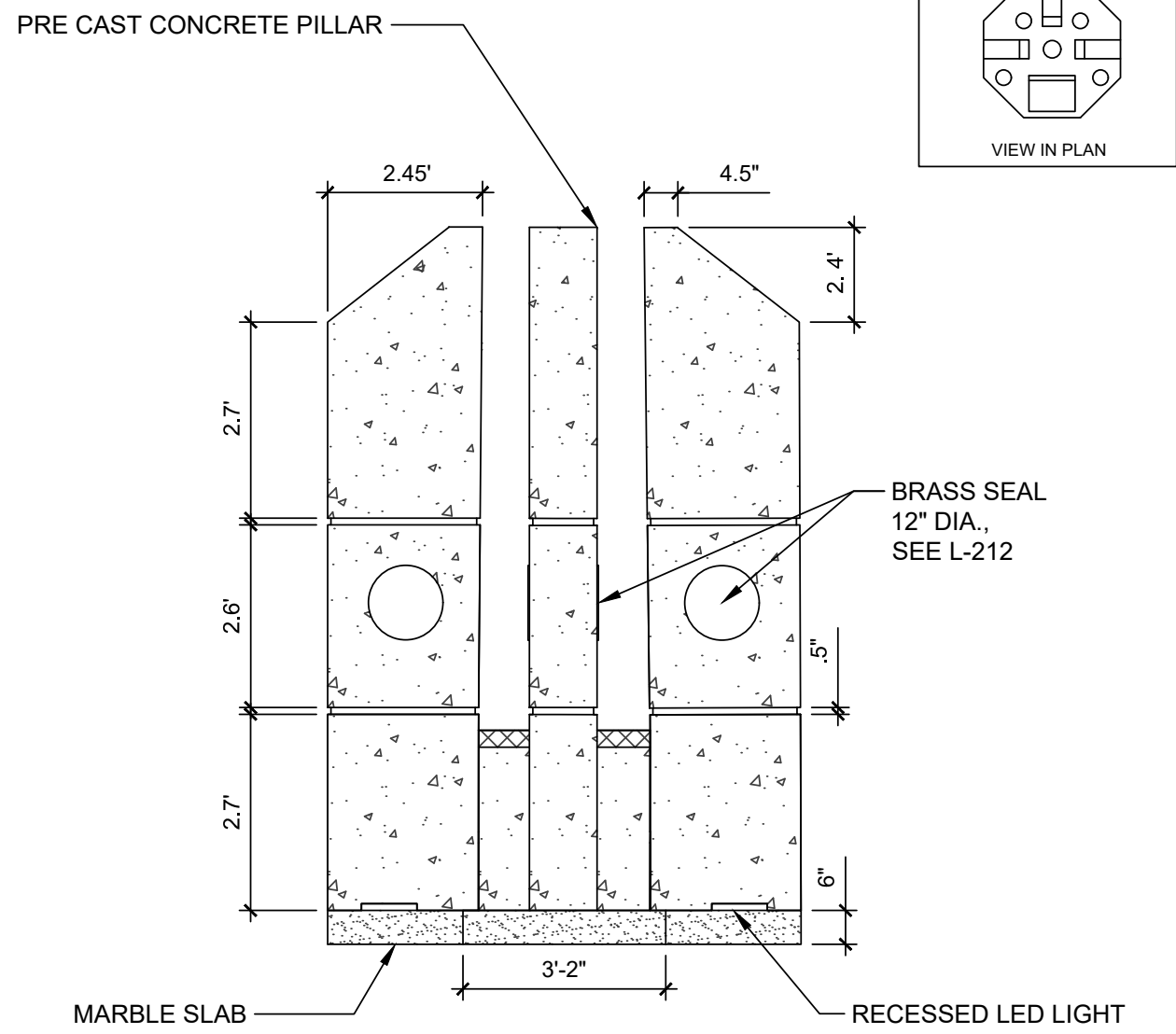
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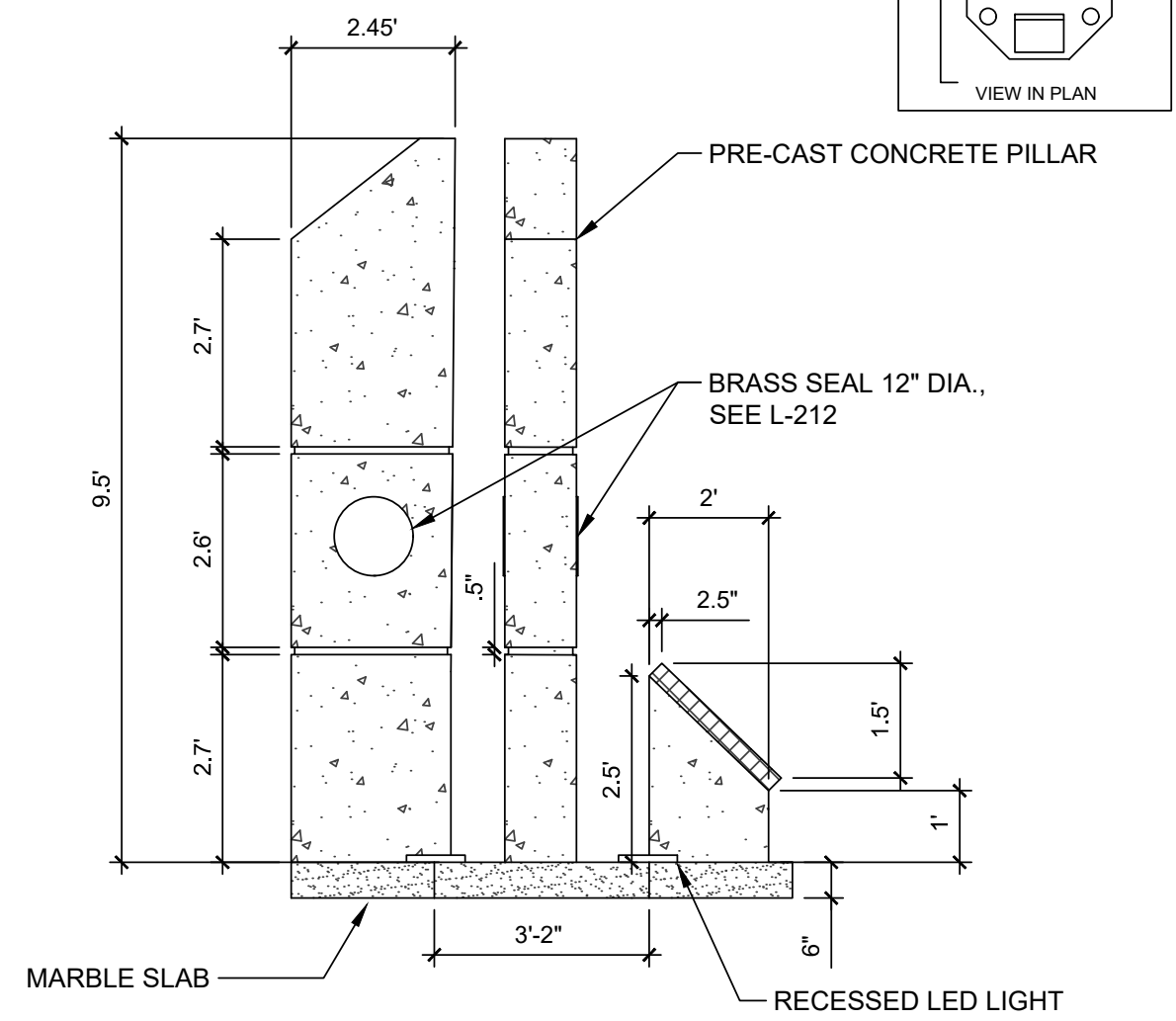
08 MONUMENT - BASIS OF DESIGN  
NTS



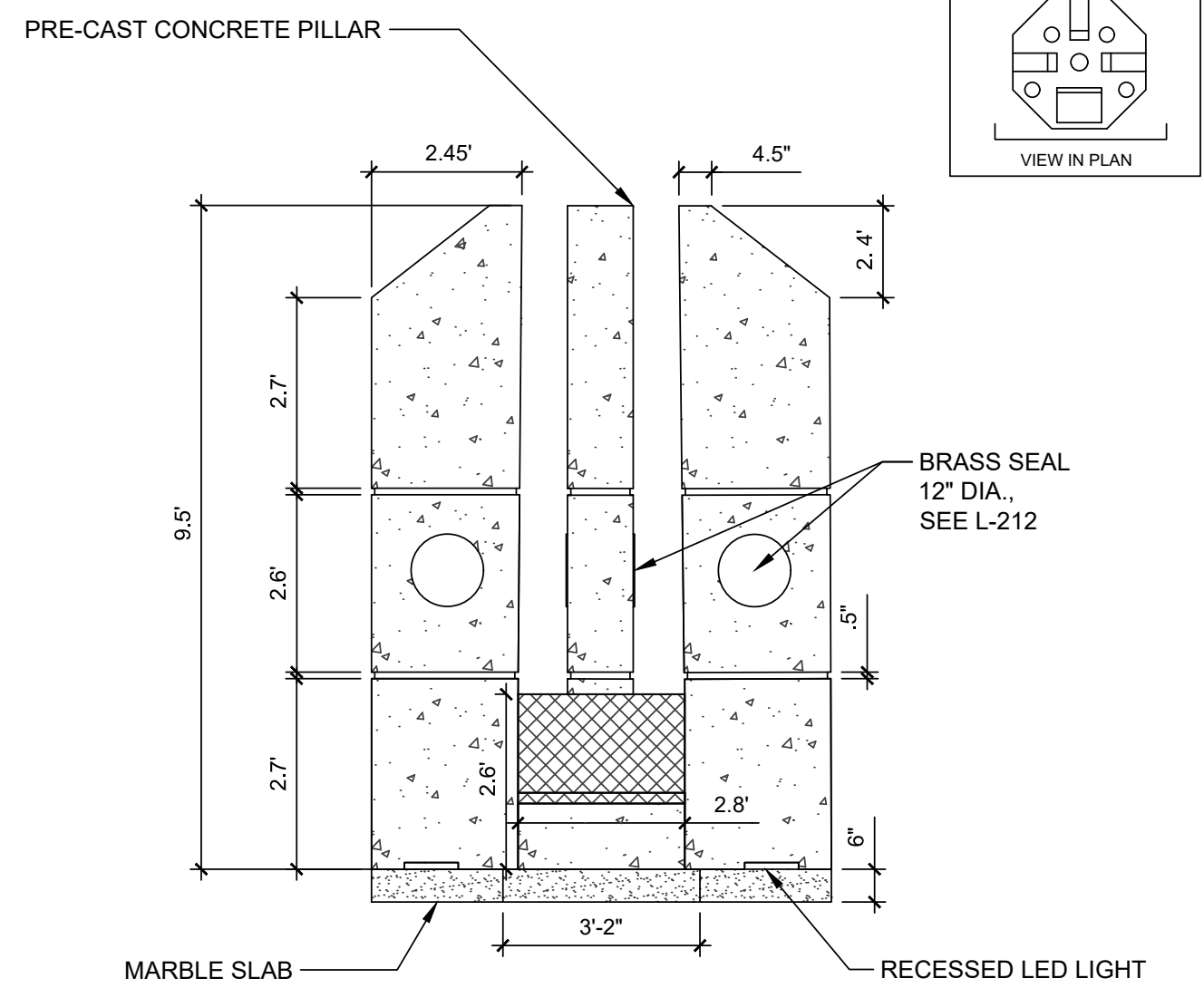
07 RECESSED OUTDOOR 9" LED LIGHT  
3/4" = 1'-0"



06 MONUMENT - BACK  
3/4" = 1'-0"

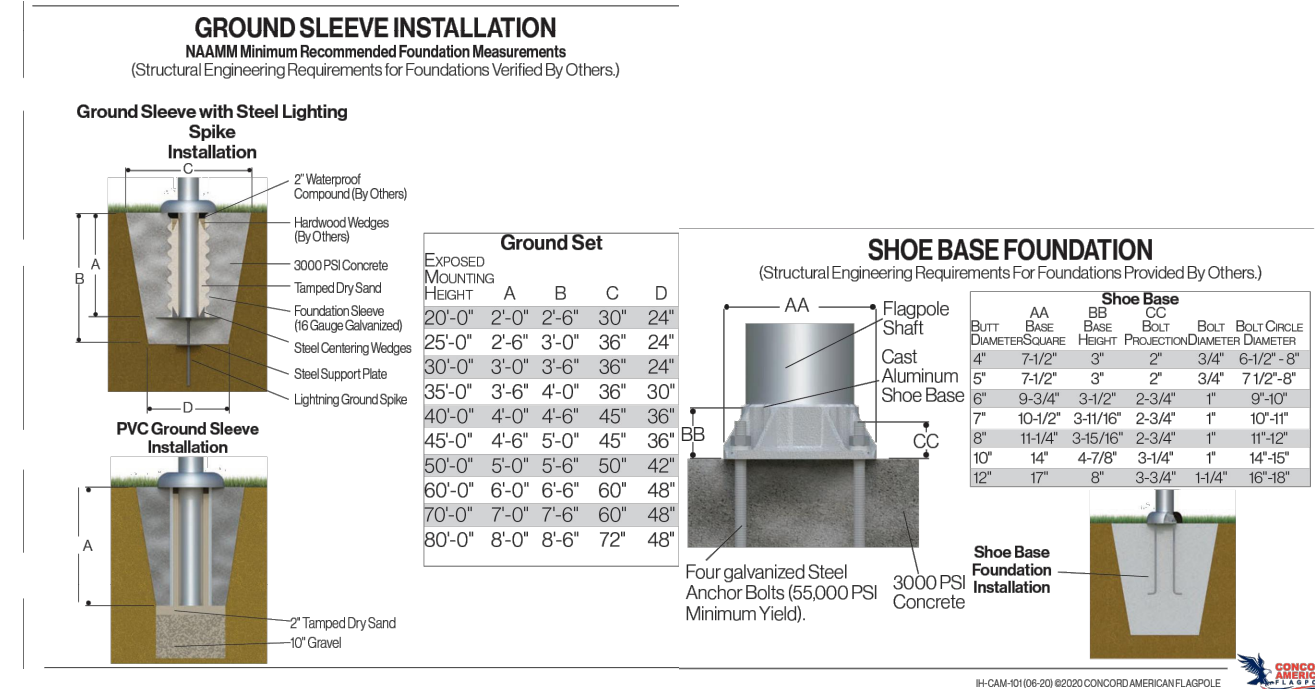


05 MONUMENT - SIDE 2  
3/4" = 1'-0"

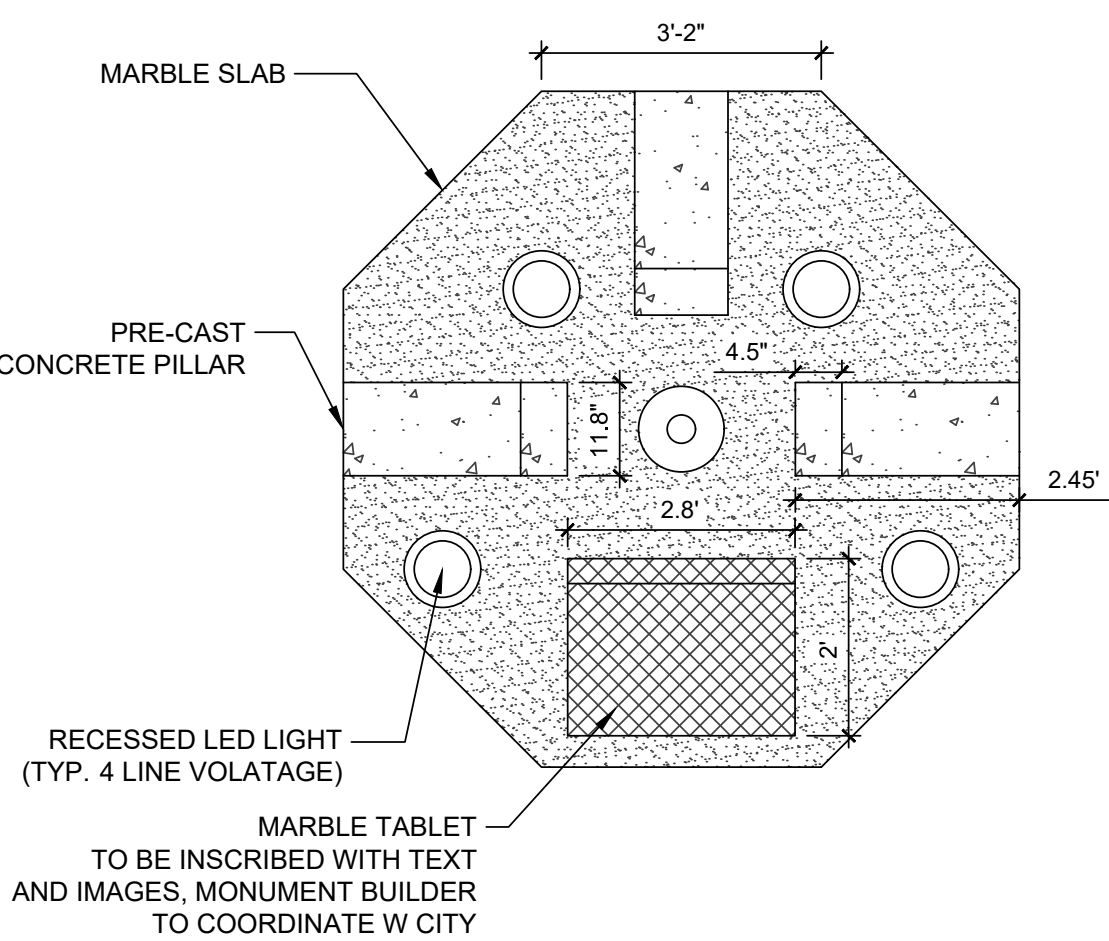


04 MONUMENT - FRONT  
3/4" = 1'-0"

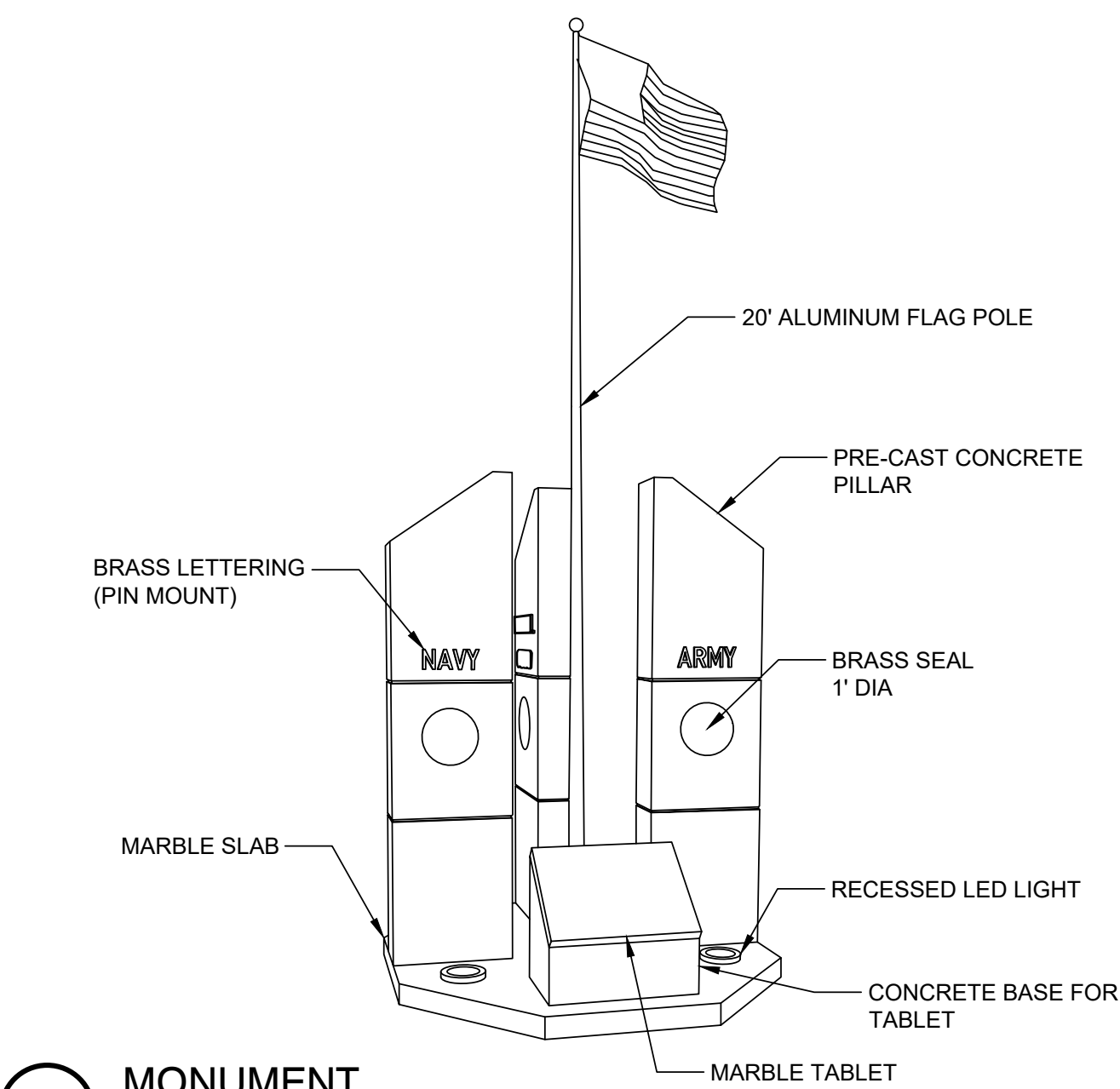
FLAGPOLE - TITAN INTERNAL HALYARD BY CONCORD AMERICAN FLAGPOLE - 20' HT. - W POLE LED 02 UPLIGHT ATTACHMENT, LOCATE AND ORIENT AS INDICATED, INSTALL PER MANUFACTURERS DETAIL



03 FLAG POLE FOUNDATION - BY CONCORD AMERICAN  
SCALE: NTS



02 MONUMENT PLAN  
3/4" = 1'-0"

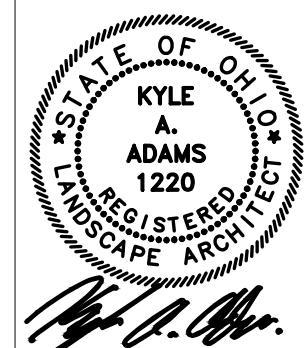


01 MONUMENT  
3/4" = 1'-0"



09 BRASS EMBLEM DESIGNS  
NTS

AMENITIES DETAILS



DESIGN AGENCY



DESIGNER

REVIEWER

PROJECT ID  
2024.02405

SUBSET TOTAL

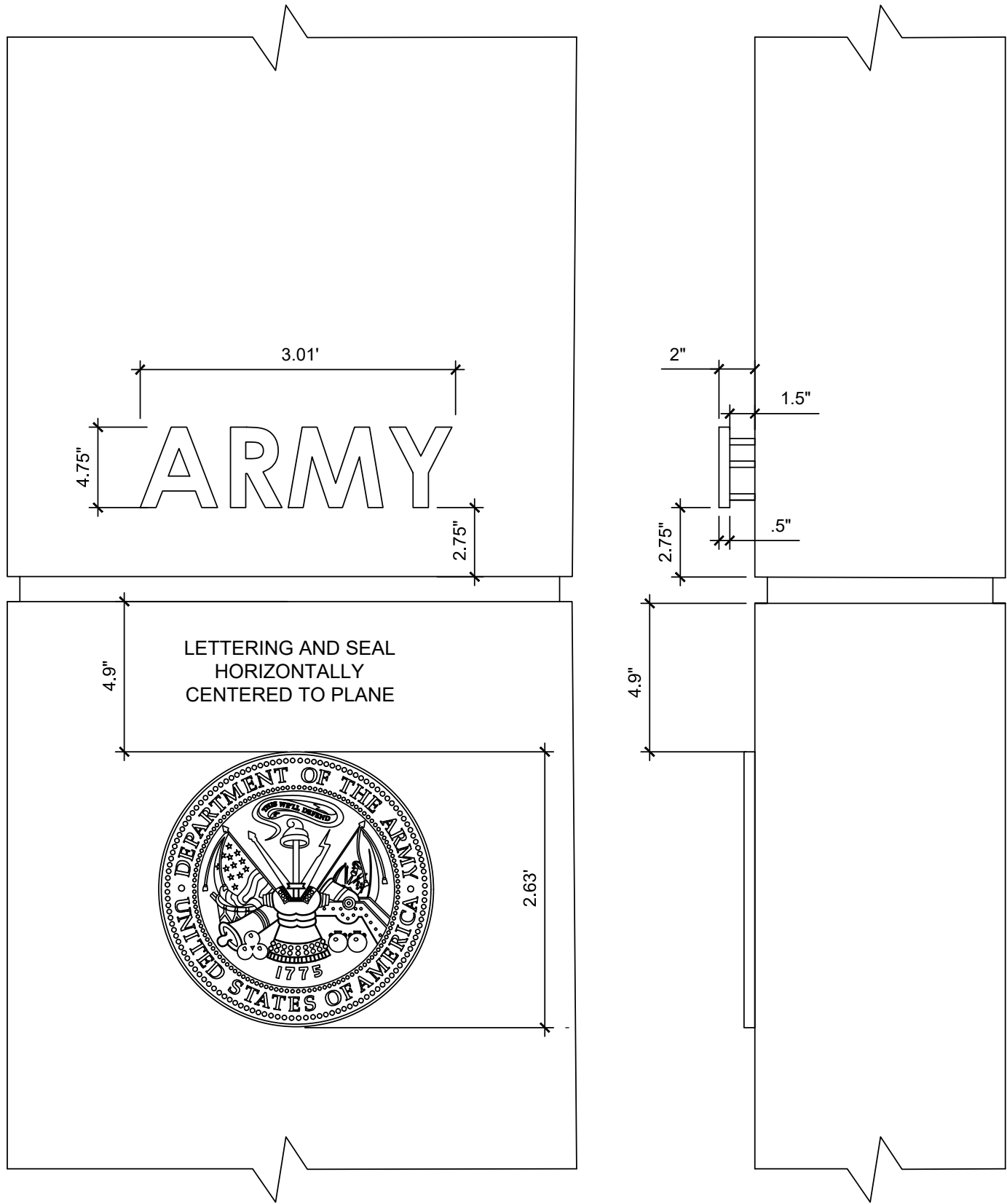
SHEET TOTAL

57 70



1 PIN MOUNTED LETTERING AND SEAL - ARMY

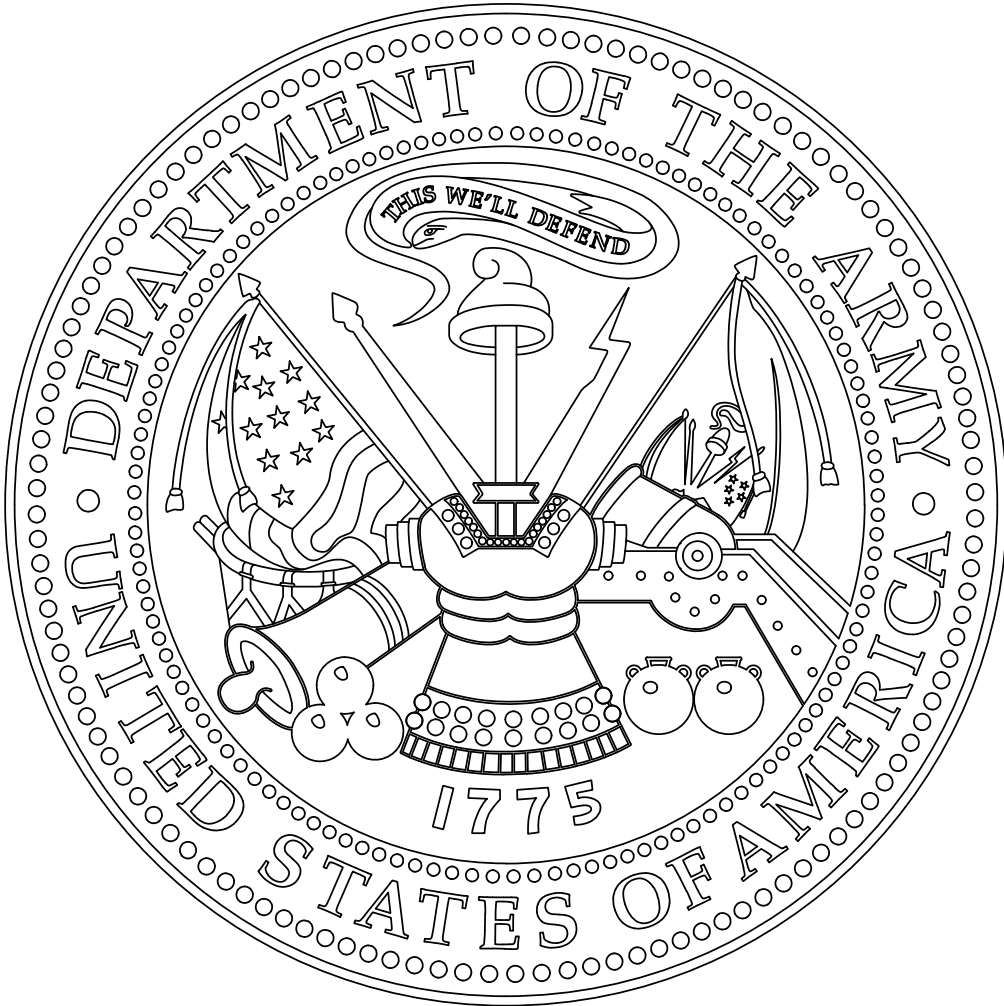
3/4" = 1'-0"



LETTERING INFO

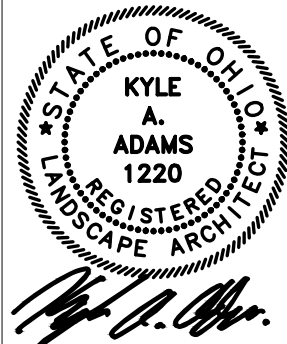
FONT STYLE: CENTURY GOTHIC - MEDIUM  
MATERIAL: BRASS  
FONT HEIGHT: 4.75"

US ARMY SEAL



NOTE: DETAIL USED AS BASIS OF DESIGN

CONTRACTOR TO PROVIDE ENGINEERING DRAWINGS FOR METAL TYPE, DIMENSIONS, THICKNESS, AND ATTACHMENT DETAILS NECESSARY FOR THE PROPER CONSTRUCTION AND INSTALLATION OF THE METAL WORK.



DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

REVIEWER

PROJECT ID  
2024.02405

SUBSET TOTAL

SHEET TOTAL  
58 70

AMENITIES DETAILS

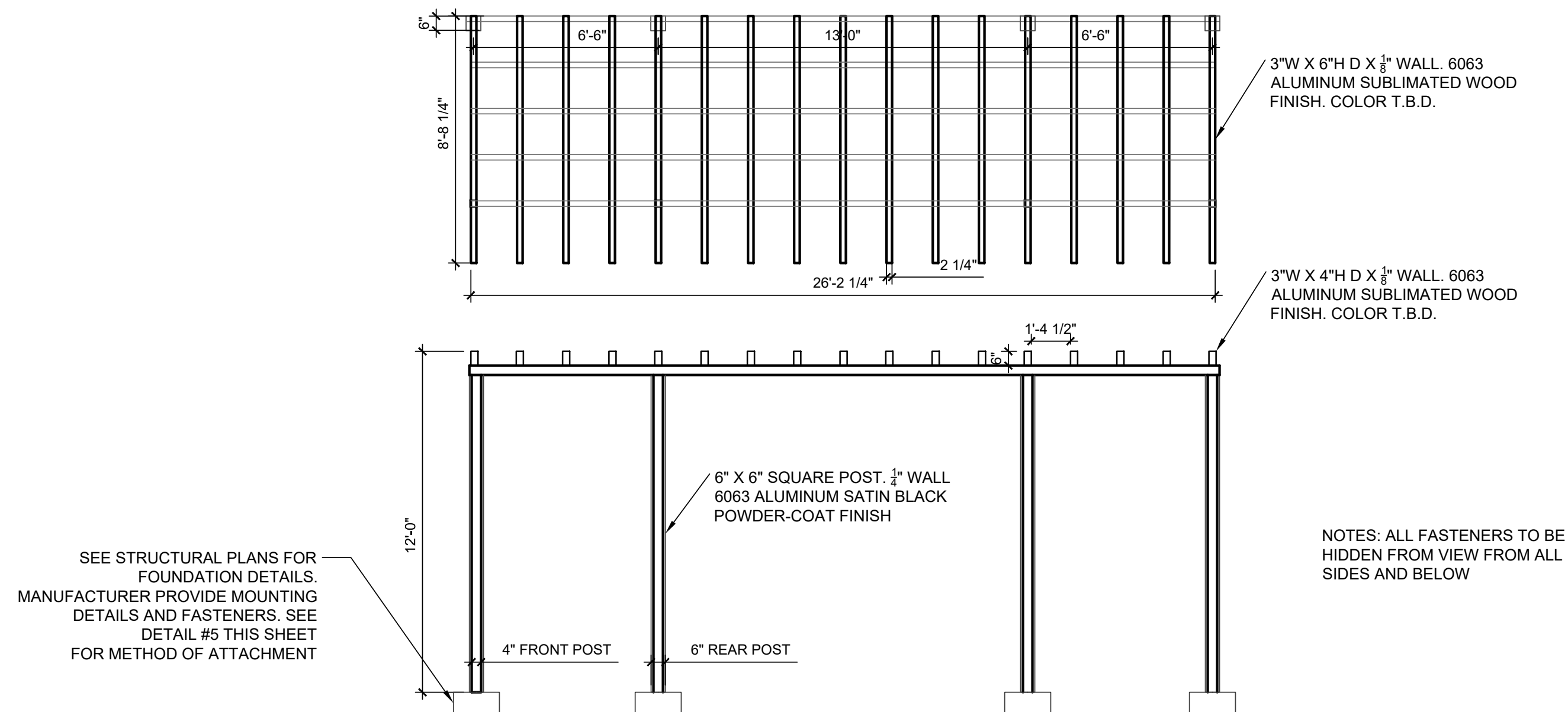




8 LARGE TRELLIS - Basis of Design: Vizor  
NTS

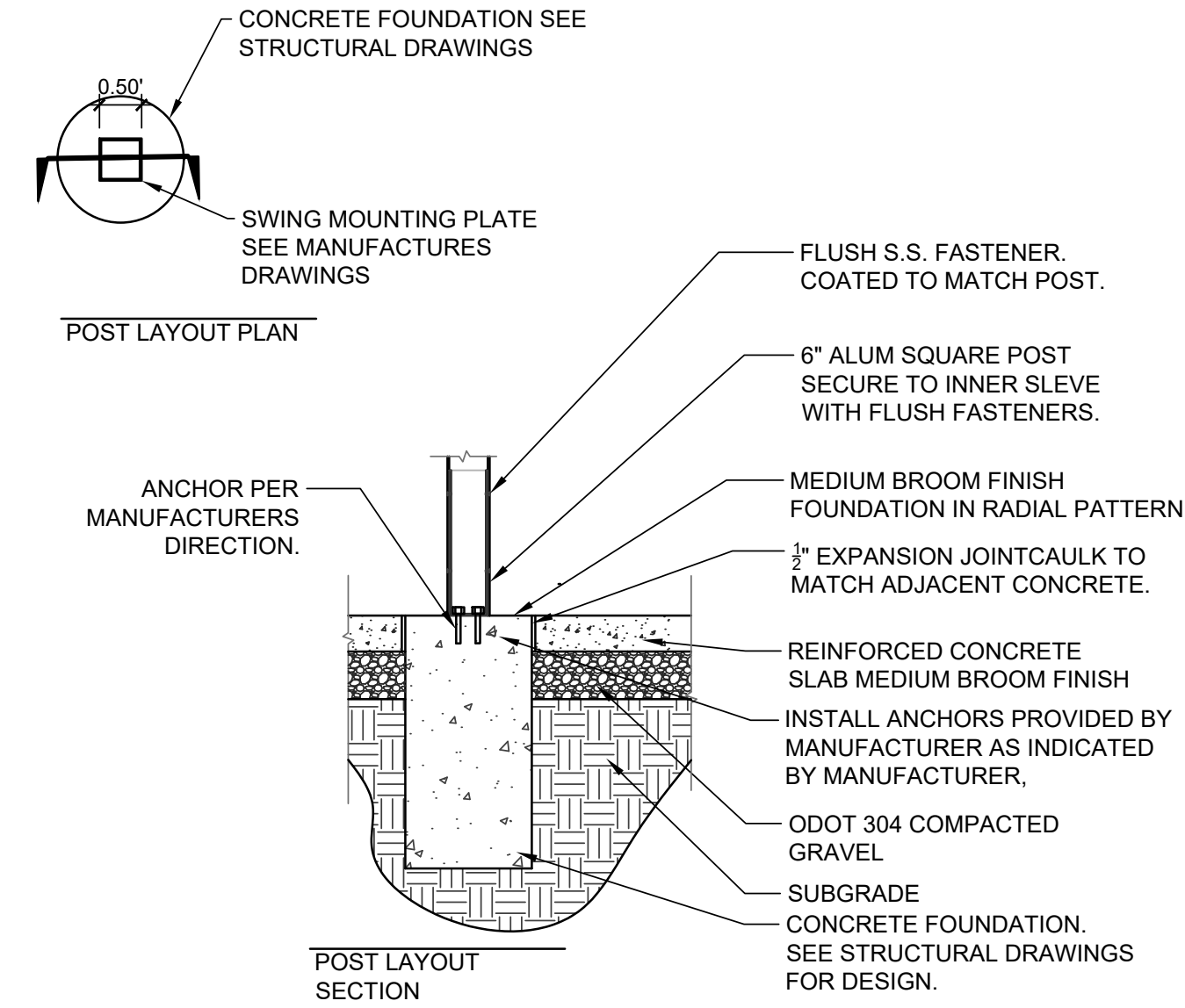


7 SCREEN FENCE  
NTS



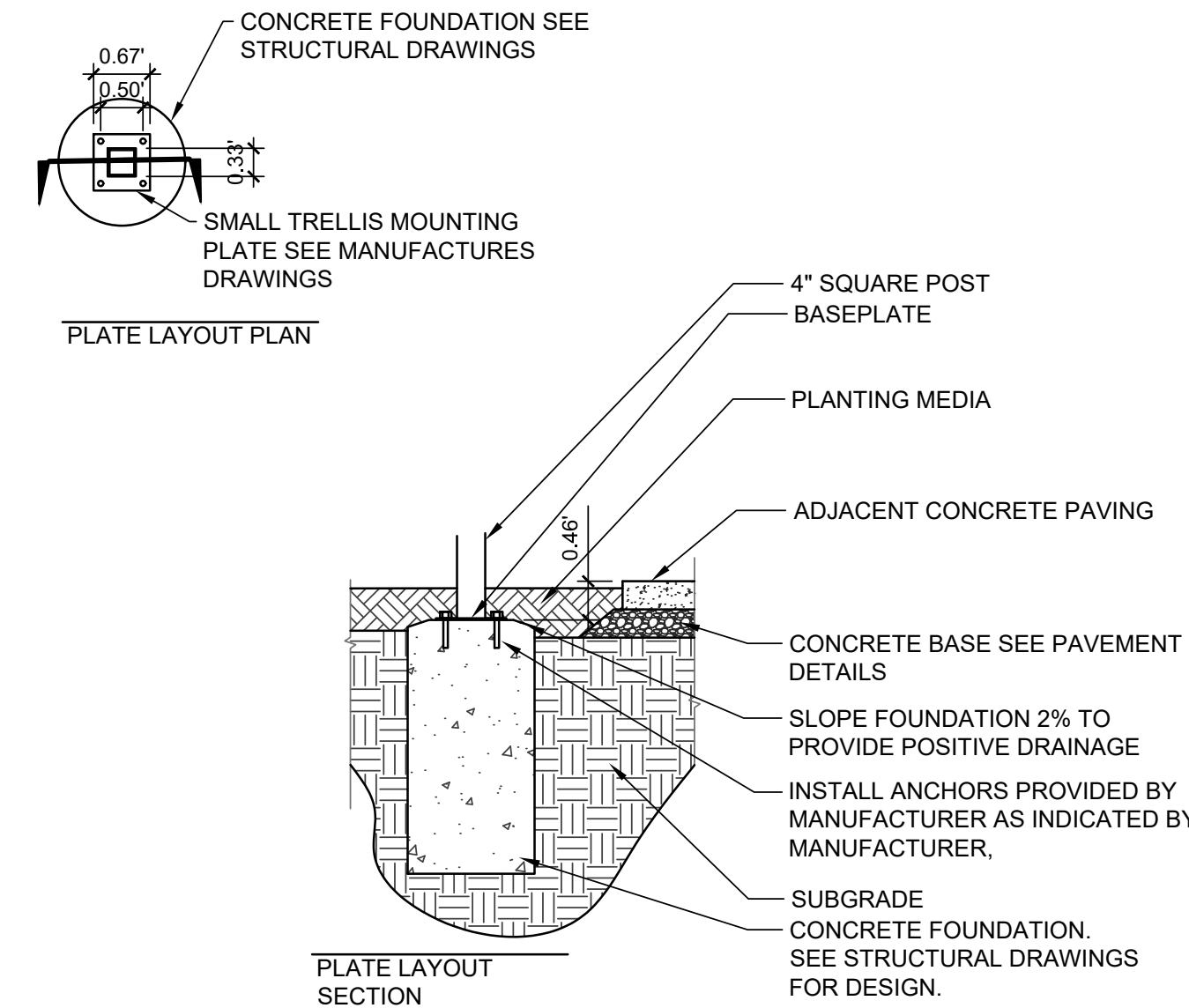
6 LARGE TRELLIS - LAYOUT AND FRONT ELEVATION  
1/4" = 1'-0"

P-24-BAI-31



5 LARGE TRELLIS MOUNTING  
1/2" = 1'-0"

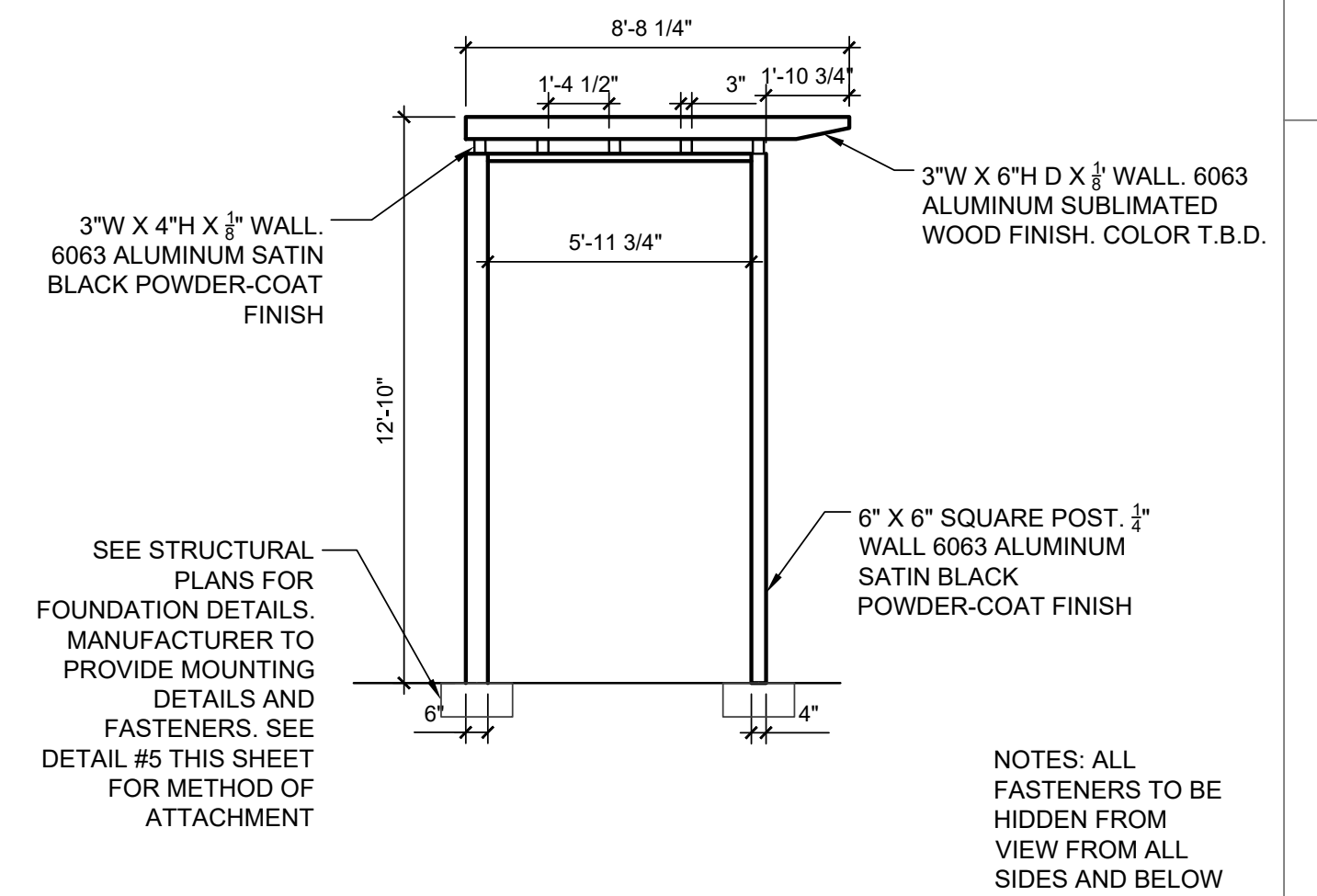
P-24-BAI-46



4 SCREEN FENCE MOUNTING  
1/2" = 1'-0"

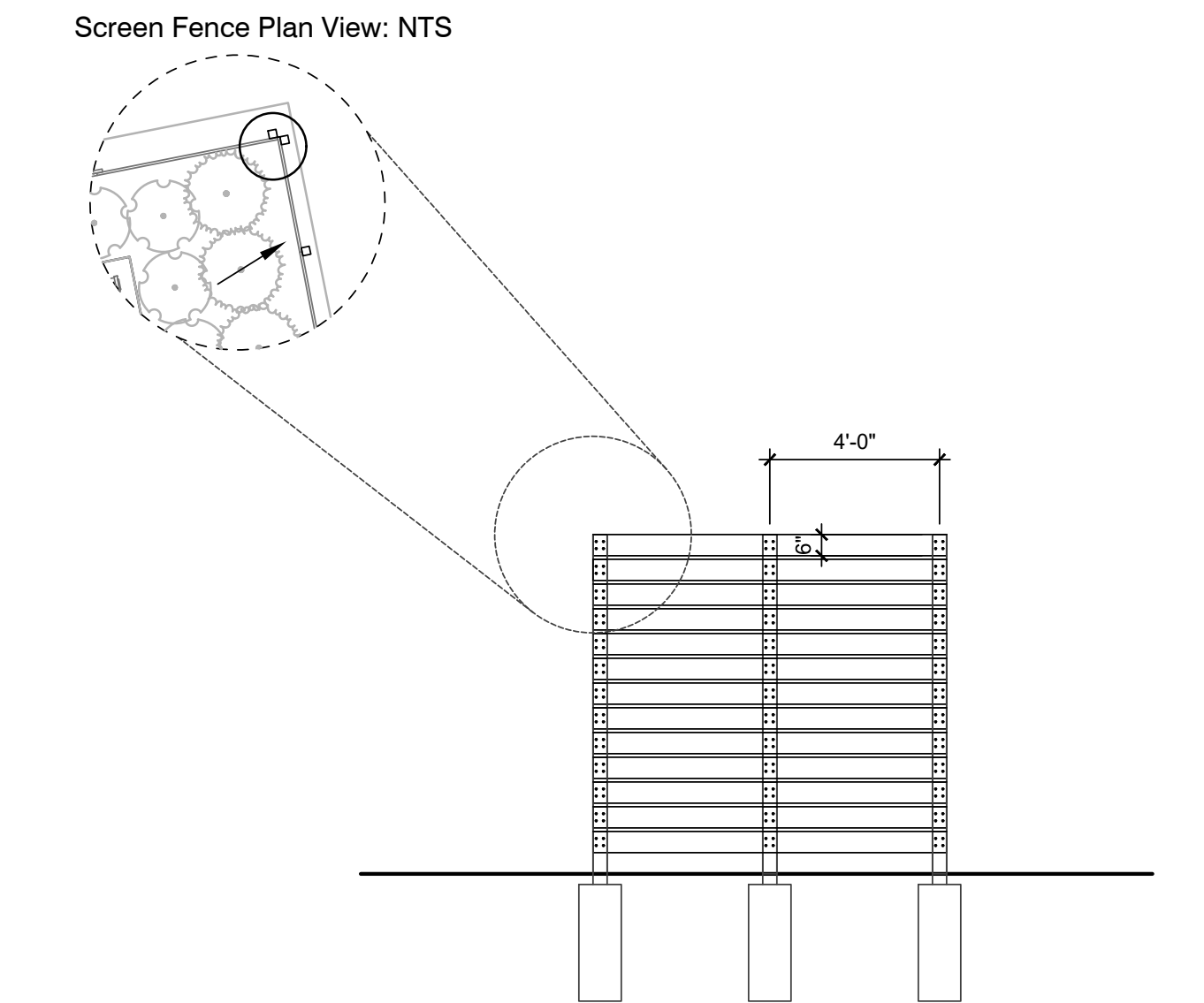
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NOTE: BASIS OF DESIGN ONLY. FOOTERS TO BE COORDINATED. CONTRACTOR TO SUBMIT STRUCTURAL ENGINEER STAMPED DRAWINGS TO BE REVIEWED BY THE OWNER/ARCHITECT



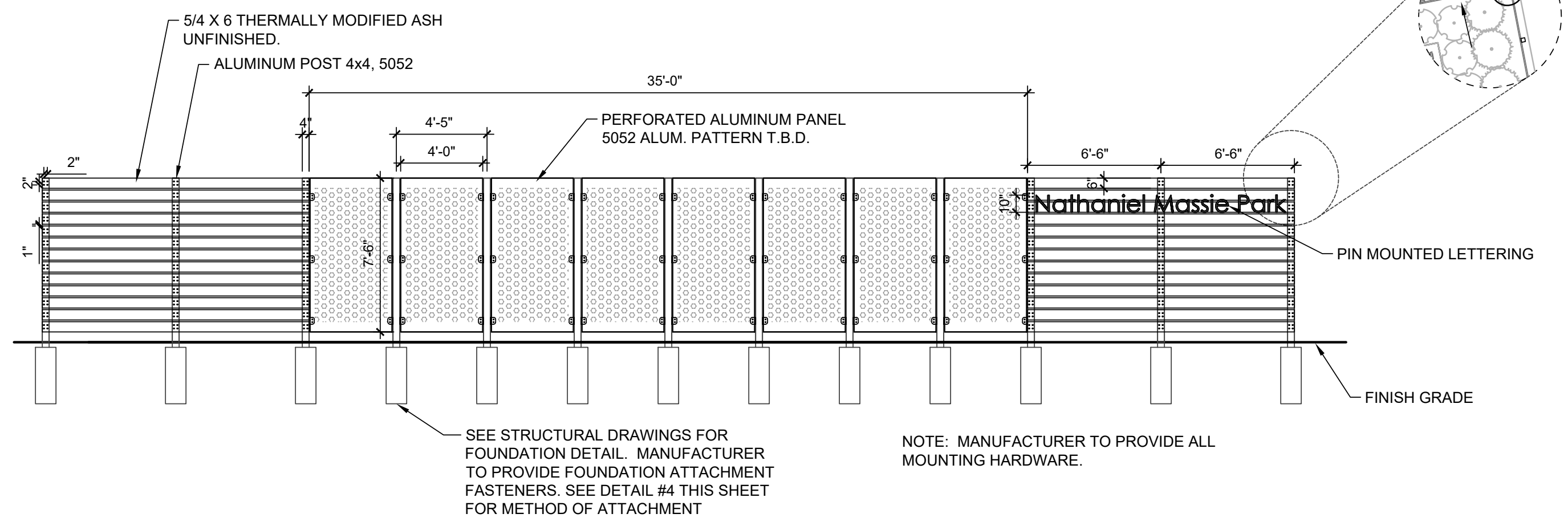
03 LARGE TRELLIS - SIDE ELEVATION  
1/4" = 1'-0"

P-24-BAI-32



02 SCREEN FENCE PROFILE ELEVATION  
1/4" = 1'-0"

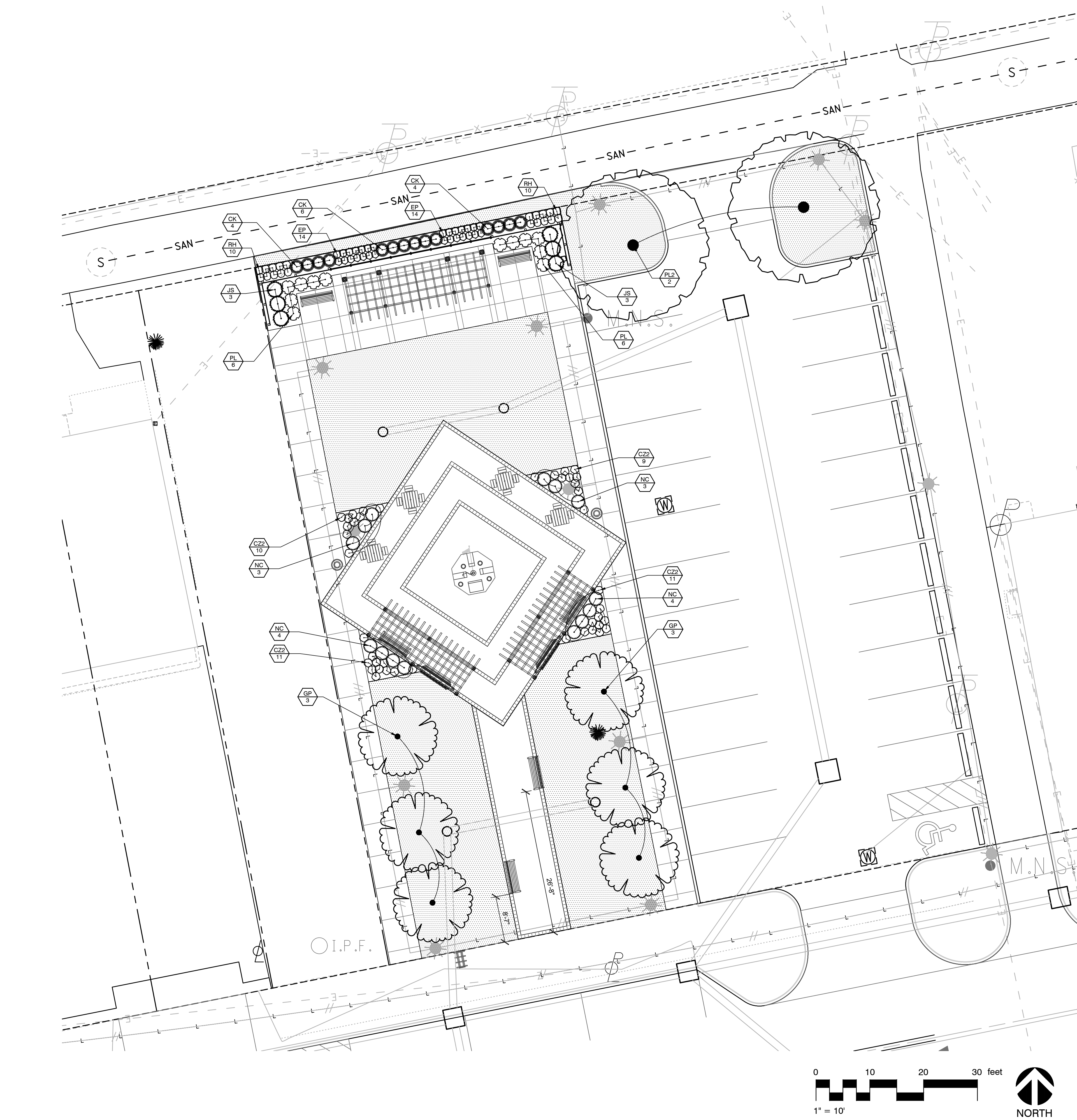
P-24-BAI-40



01 SCREEN FENCE FRONT ELEVATION  
3/16" = 1'-0"

P-24-BAI-39





## GENERAL NOTES:

- CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS IN THE FIELD PRIOR TO BEGINNING WORK. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES ASSOCIATED WITH WORK. UTILITIES SHALL BE REPAIRED TO SATISFACTION OF THE UTILITY OWNER AND/OR OPERATING AUTHORITY AT NO ADDITIONAL COST.
- A MINIMUM OF 4" OF PLANTING SOIL  $\frac{1}{2}$  TOPSOIL,  $\frac{1}{2}$  MULCH AND SOIL CONDITIONER) SHALL BE PLACED ON ALL AREAS TO BE SEEDED, SODDED AND PLANTED. PLANTING SOIL MIX SHALL BE FREE FROM SUBSOIL, VEGETATION, WEEDS OR ANY EXTRANEOUS OR DELETERIOUS MATERIALS LARGER THAN 1". REMOVE ANY UNSUITABLE AND EXCESS EXISTING TOPSOIL AS DETERMINED BY SOILS ENGINEER, FROM THE SITE. FURNISH ANY ADDITIONAL SOIL AS NEEDED AT NO ADDITIONAL COST. ADDED PLANTING SOIL IS TO BE INCORPORATED INTO EXISTING.
- IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE. IF IN QUESTION, CONTACT THE LANDSCAPE ARCHITECT.
- ALL PLANTING BEDS SHALL HAVE A 3" THICK LAYER OF SHREDDED HARDWOOD BARK MULCH. NO UTILITY MULCH OR PROCESSED TREE TRIMMINGS WILL BE ALLOWED. ALL PLANTING BEDS SHALL HAVE PRE-EMERGENT HERBICIDE APPLIED AS PER MANUFACTURER'S RECOMMENDATION, AFTER INSTALLATION IS COMPLETE.
- FINAL PLACEMENT OF PLANT MATERIALS, ETC. SHALL BE APPROVED BY LANDSCAPE ARCHITECT AND OWNER BEFORE PLANTING OPERATIONS ARE TO PROCEED. ALL TREE LOCATIONS SHALL BE MARKED WITH A WOODEN STAKE INDICATING VARIETY AND SIZE OF TREE.
- NO SUBSTITUTIONS OF PLANT MATERIAL WILL BE ALLOWED. IF PLANTS ARE SHOWN TO BE UNAVAILABLE, THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AND OWNER PRIOR TO BID DATE IN WRITING. ALL PLANTS SHALL BE INSPECTED AND TAGGED WITH PROJECT IDENTIFICATION AT NURSERY OR CONTRACTOR'S OPERATION PRIOR TO MOVING TO JOB SITE. PLANTS MAY ALSO BE INSPECTED AND APPROVED OR REJECTED ON THE JOB SITE.
- ALL PLANTS ARE TO MEET OR EXCEED AMERICAN STANDARDS FOR NURSERY STOCK, CURRENT EDITION, AS SET FORTH BY AMERICAN ASSOCIATION OF NURSEYMEN.
- PLANTINGS SHOULD BE INSTALLED BETWEEN APRIL 1ST AND MAY 31ST, OR BETWEEN SEPTEMBER 1ST AND OCTOBER 31ST TO AVOID UNFAVORABLE WEATHER CONDITIONS. LANDSCAPE AND TURF PLANTED OUTSIDE OF THESE PERIODS WILL REQUIRE ADDITIONAL MEASURES TO MAINTAIN ACCEPTABLE HEALTH AT NO ADDITIONAL COST TO THE CLIENT.
- PLANTS AND ALL OTHER MATERIALS TO BE STORED ON SITE WILL BE PLACED WHERE THEY WILL NOT CONFLICT WITH CONSTRUCTION AND AS DIRECTED BY OWNER.
- ALL NEW LANDSCAPE PLANTINGS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FOLLOWING FINAL INSPECTION BY LANDSCAPE ARCHITECT AND OWNER. AT END OF THIS PERIOD, PLANT MATERIAL TERMED DEAD OR UNSATISFACTORY BY LANDSCAPE ARCHITECT OR OWNER SHALL BE REPLACED AT NO ADDITIONAL CHARGE BY THE LANDSCAPE CONTRACTOR.
- ALL DISTURBED LAWN AREAS SHALL BE SEEDED OR SODDED AS SHOWN PER THE LANDSCAPE AND EROSION CONTROL PLANS.
- LAWN AND SOD AREAS ARE TO BE GRADED UNIFORMLY WITHOUT ANY UNDULATIONS OR IRREGULARITIES IN THE SURFACE PRIOR TO ANY SEED OR SOD WORK.
- ALL LAWN IS TO BE A BLEND PER THE PLANT SCHEDULE. SEED AREAS ARE TO HAVE 0% NOXIOUS WEED AND FREE OF DISEASE.
- PROTECT LAWN SEEDED AREAS WITH STRAW MULCH. SPREAD MULCH UNIFORMLY AT A MINIMUM RATE OF 2 TONS PER ACRE TO FORM A CONTINUOUS BLANKET 1  $\frac{1}{2}$  INCHES IN LOOSE THICKNESS OVER SEEDED AREAS.
- BEFORE EXCAVATION, IF THERE IS NOT A CLEAN AND OR CLEAR SEPARATION OF EXISTING CONDITIONS AND BUILDING FOUNDATION PAUSE WORK AND CONSULT CITY REPRESENTATIVE AND DESIGN TEAM. DO NOT REMOVE ANY MATERIAL THAT MAY UNDERMINE OR DAMAGE BUILDING FOUNDATIONS.

## LANDSCAPE SCHEDULE

CODE	DESCRIPTION	QTY	DETAIL
LA-101	Landscape Edging	117 lf	

## PLANT SCHEDULE

CODE	QTY	REMARKS	BOTANICAL / COMMON NAME	COND.	SIZE	SPACING
<b>TREES</b>						
GP	6		Ginkgo biloba 'Princeton Sentry' / Princeton Sentry Maidenhair Tree	B & B	2" Cal.	
PL2	2		Platanus x acerifolia 'Liberty' / Liberty London Plane Tree	B&B	2" Cal.	
<b>EVERGREEN TREES</b>						
JS	6		Juniperus scopulorum 'Skyrocket' / Skyrocket Juniper	B & B	2" Cal	As shown
<b>SHRUBS</b>						
PL	12		Physocarpus opulifolius 'Little Devil' / Little Devil™ Dwarf Ninebark	CONT	1 GAL	
<b>PERENNIALS / GRASSES</b>						
CK	14		Calamagrostis x acutiflora 'Karl Foerster' / Karl Foerster Feather Reed Grass	Cont.	1 Gal.	
CZ2	42		Coreopsis verticillata 'Zagreb' / Zagreb Tickseed	Cont.	1 Gal.	
EP	28		Echinacea purpurea / Coneflower	CONT	2 Gal.	
NC	14		Nepeta x 'Cat's Pajamas' / Cat's Pajamas Catmint	Cont.	1 Gal.	
RH	20		Rudbeckia hirta / Black-eyed Susan	CONT.	2 Gal.	

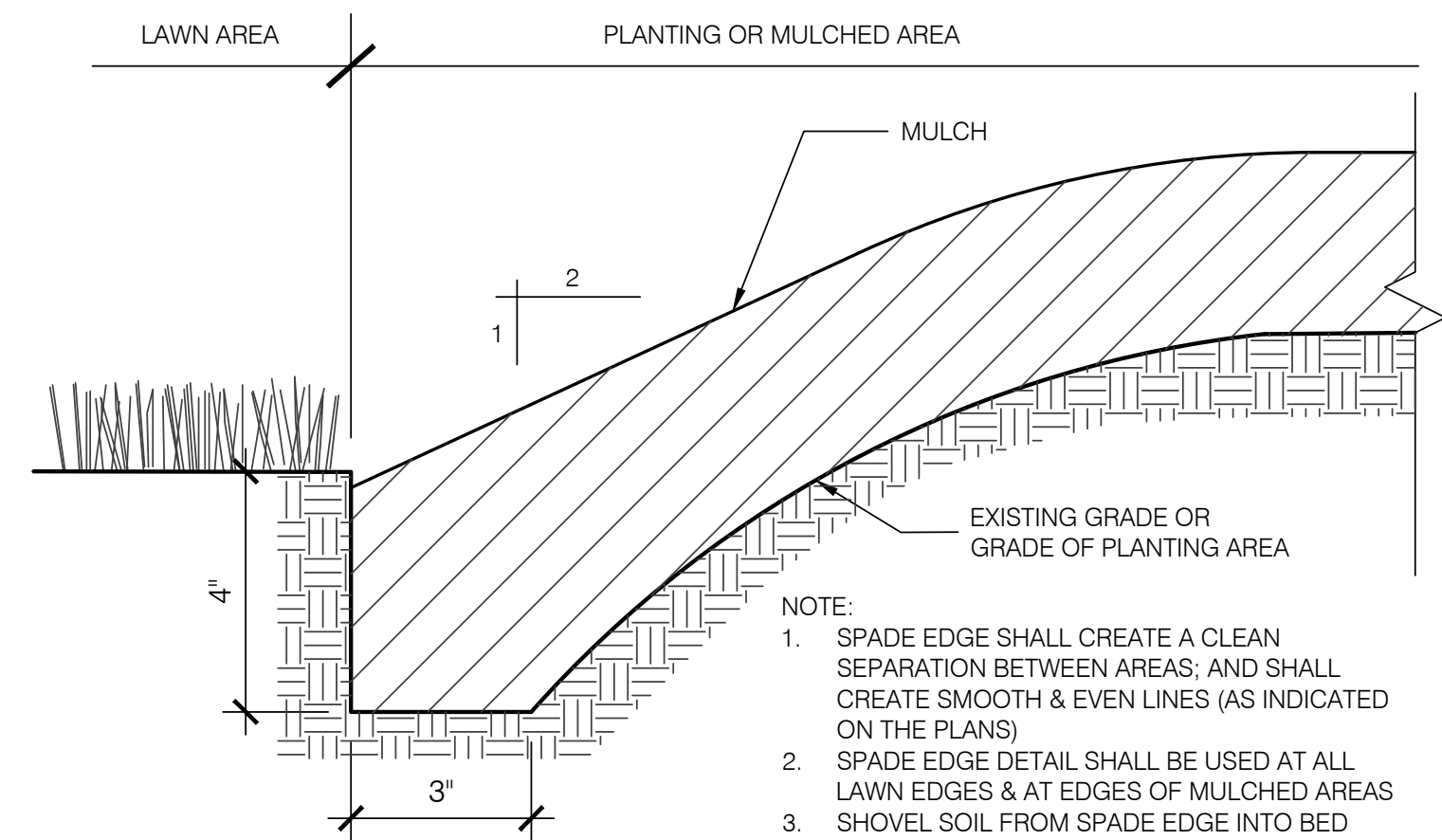
## GROUNDCOVER SCHEDULE

	TURF GRASS SOD MIX	3,764 sf
See specifications for additional sod mixes and installation requirements.		

GEOTECHNICAL REPORT INDICATES THAT UNDOCUMENTED FILL AND BURIED STRUCTURES WERE ENCOUNTERED THROUGHOUT THE SITE. WHERE A BURIED STRUCTURE IS FOUND DURING CONSTRUCTION, COMPLETE REMOVAL IS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. REPLACE WITH STRUCTURAL FILL MATERIAL AS OUTLINED IN THE GEOTECHNICAL REPORT.

## 05 EDGE - SPADE

NTS



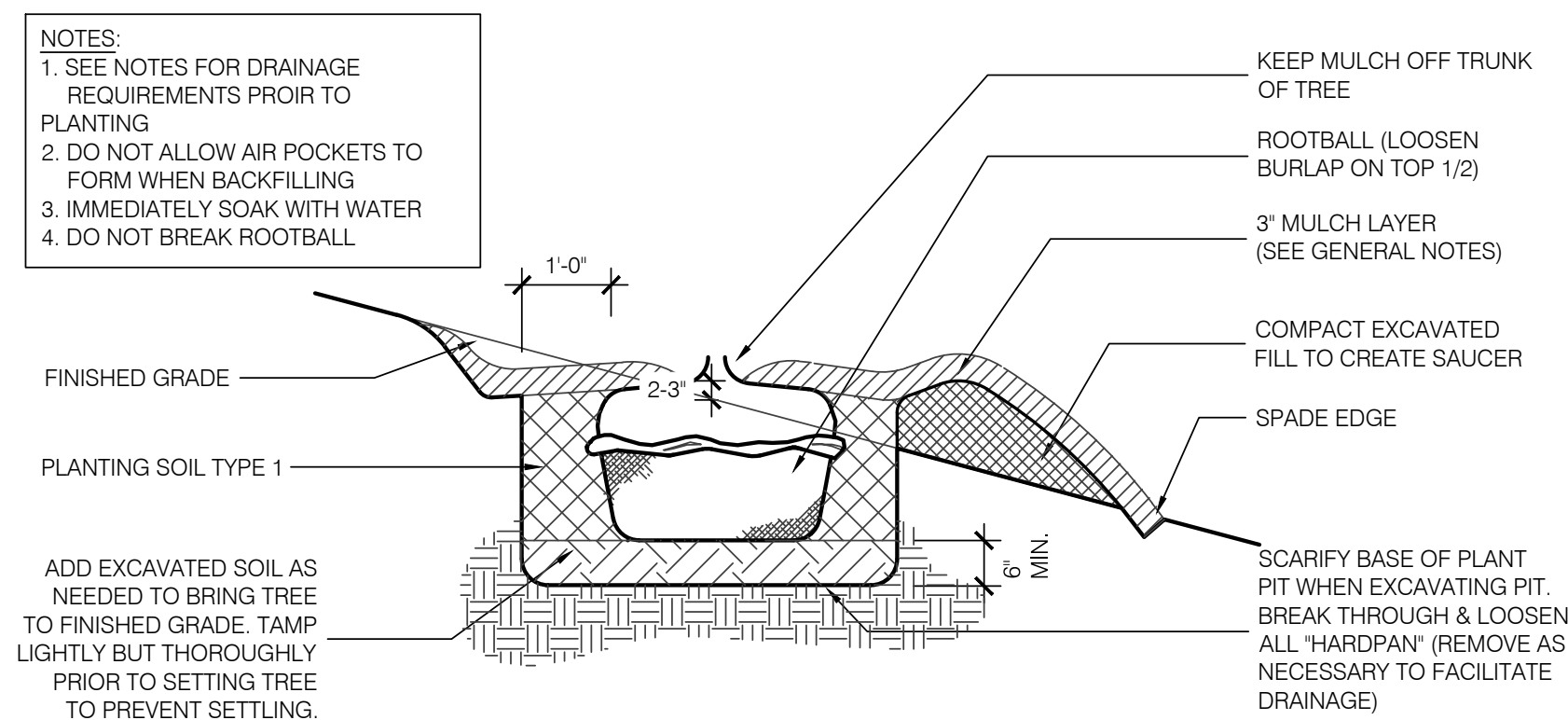
- NOTE:
1. SPADE EDGE SHALL CREATE A CLEAN SEPARATION BETWEEN AREAS; AND SHALL CREATE SMOOTH & EVEN LINES (AS INDICATED ON THE PLANS)
  2. SPADE EDGE DETAIL SHALL BE USED AT ALL LAWN EDGES & AT EDGES OF MULCHED AREAS
  3. SHOVEL SOIL FROM SPADE EDGE INTO BED PRIOR TO CULTIVATING SOIL

## PLANTING PROCEDURE

1. EXCAVATE ROOTBALL PIT
2. SET TREE SUCH THAT TOP OF ROOTBALL IS 2-3" HIGHER THAN FINISH GRADE
3. REMOVE ALL TWINE, ROPE, WIRE BASKET, AND BURLAP FROM TOP 1/3 OF ROOTBALL & EXPOSE ROOT FLARE
4. BACKFILL WITH SOIL MIX & "WATER IN"
5. COMPLETE BACKFILLING, CONSTRUCT SAUCER, SPADE-EDGE & ADD MULCH
6. STAKE & GUY SECURELY (AS REQUIRED)
7. INSTALL WATERING DEVICE (AS REQUIRED)

## 04 TREE PLANTING - ON SLOPE

NTS



- NOTES:
1. SEE NOTES FOR DRAINAGE REQUIREMENTS PRIOR TO PLANTING
  2. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING
  3. IMMEDIATELY SOAK WITH WATER
  4. DO NOT BREAK ROOTBALL

KEEP MULCH OFF TRUNK OF TREE

ROOTBALL (LOOSEN BURLAP ON TOP 1/2)

3" MULCH LAYER (SEE GENERAL NOTES)

COMPACT EXCAVATED FILL TO CREATE SAUCER

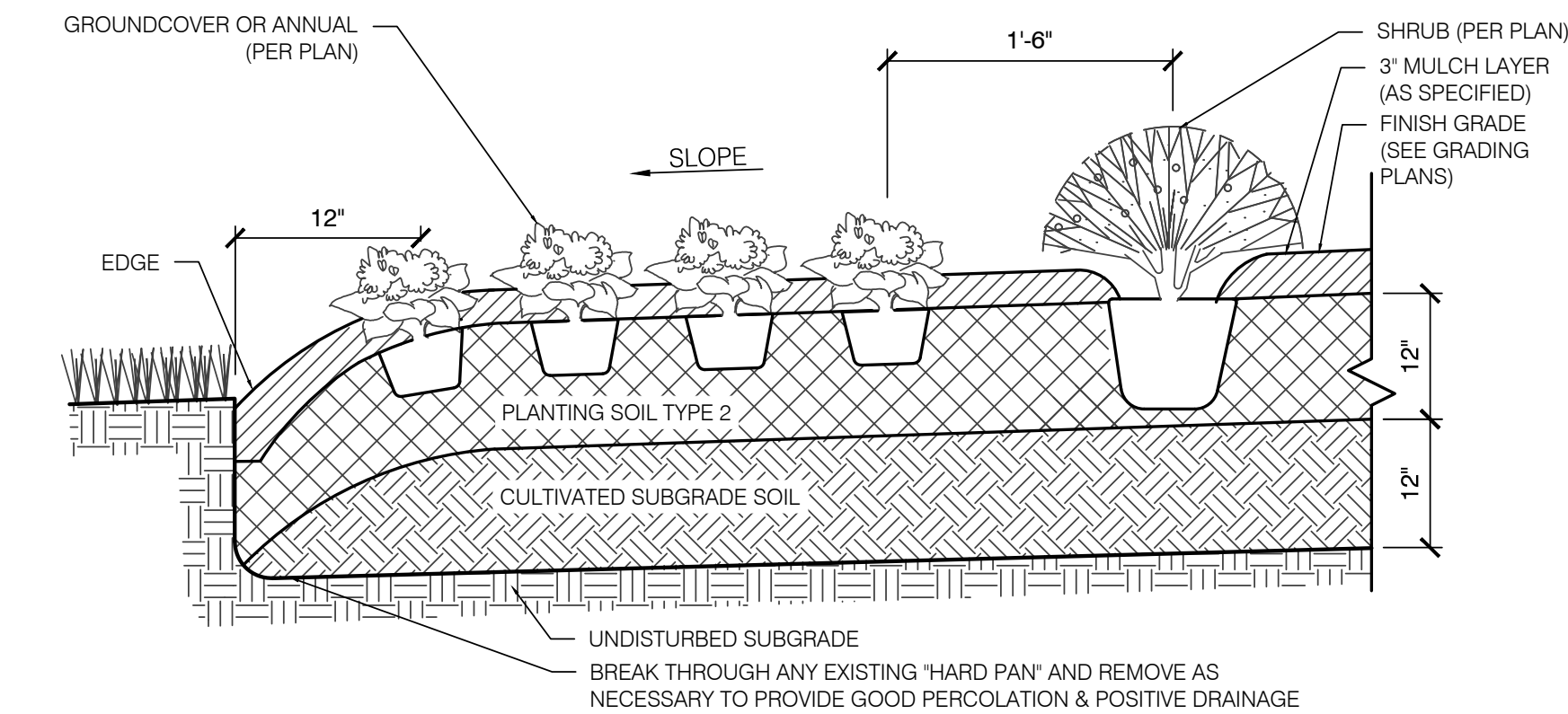
SPADE EDGE

SCARIFY BASE OF PLANT PIT WHEN EXCAVATING PIT. BREAK THROUGH & LOOSEN ALL "HARDPAN" (REMOVE AS NECESSARY TO FACILITATE DRAINAGE)

FINISHED GRADE

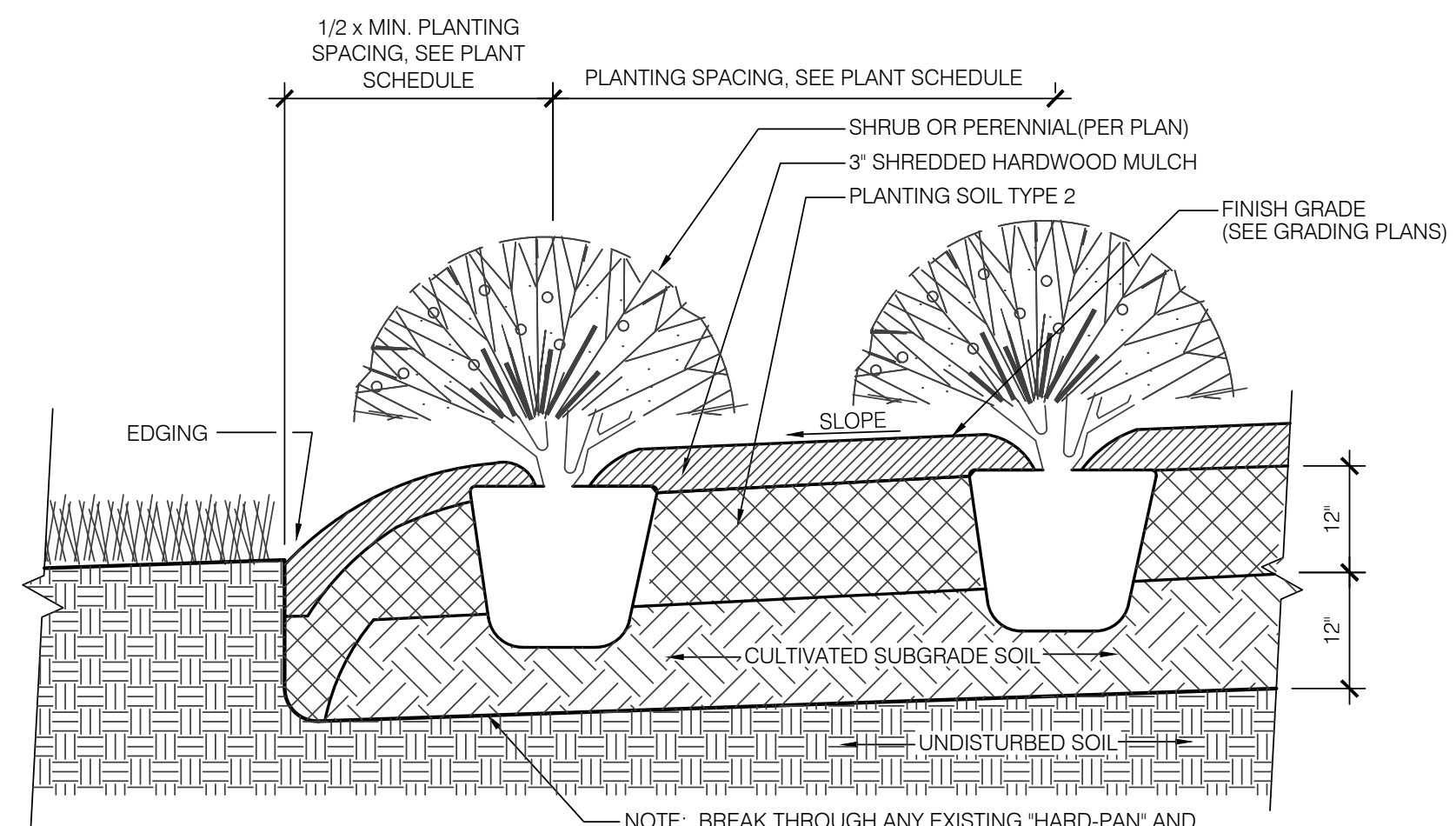
PLANTING SOIL TYPE 1

ADD EXCAVATED SOIL AS NEEDED TO BRING TREE TO FINISHED GRADE. TAMP LIGHTLY BUT THOROUGHLY PRIOR TO SETTING TREE TO PREVENT SETTING.



## 03 GROUNDCOVER AND ANNUAL PLANTING

NTS

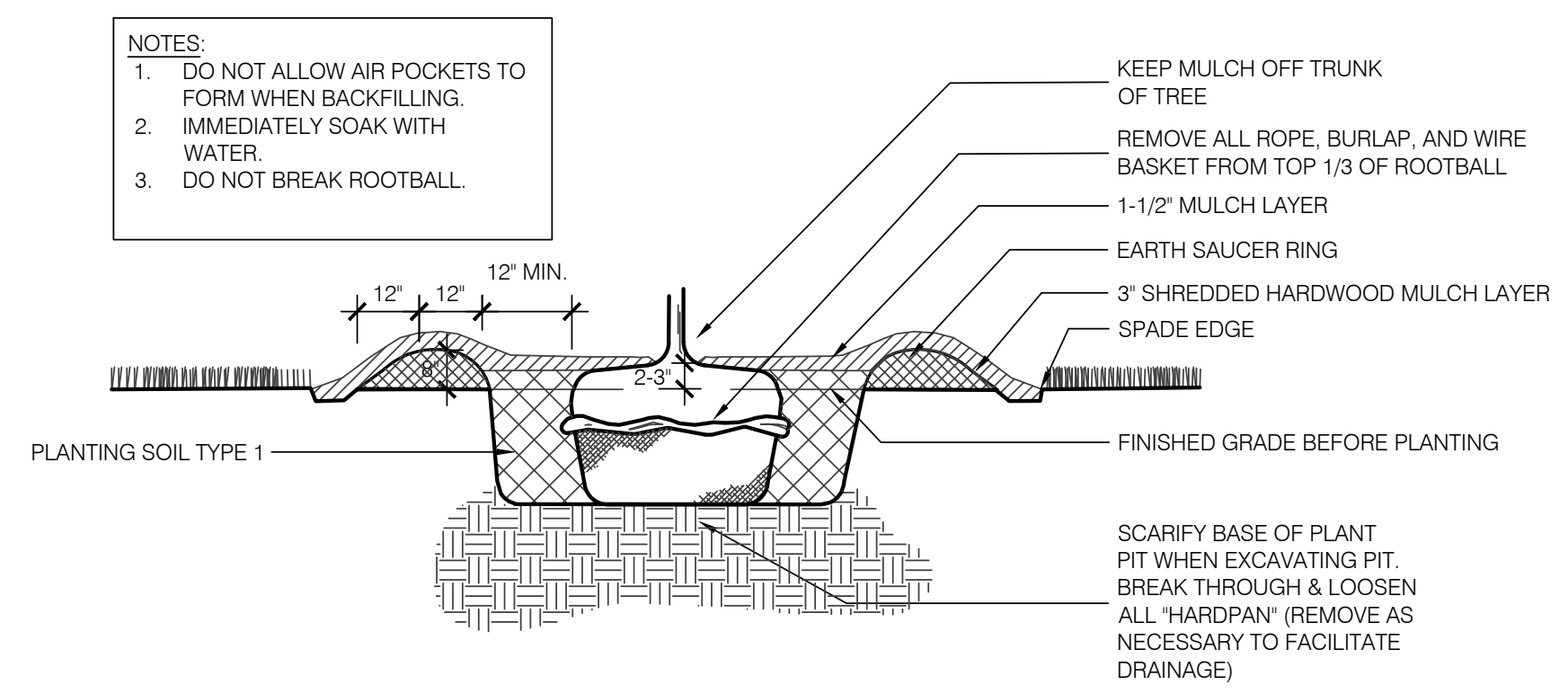


## PLANTING PROCEDURE

1. LAYOUT BED AND OUTLINE EDGE.
2. PREPARE PLANTING SOIL PER SPECIFICATIONS.
3. INSTALL PLANTS, MULCH AND WATER THOROUGHLY. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.

## 02 SHRUB AND PERENNIAL PLANTING

NTS



- NOTES:
1. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.
  2. IMMEDIATELY SOAK WITH WATER.
  3. DO NOT BREAK ROOTBALL.

KEEP MULCH OFF TRUNK OF TREE

REMOVE ALL ROPE, BURLAP, AND WIRE BASKET FROM TOP 1/3 OF ROOTBALL

1-1/2" MULCH LAYER

EARTH SAUCER RING

3" SHREDDED HARDWOOD MULCH LAYER

SPADE EDGE

FINISHED GRADE BEFORE PLANTING

SCARIFY BASE OF PLANT PIT WHEN EXCAVATING PIT. BREAK THROUGH & LOOSEN ALL "HARDPAN" (REMOVE AS NECESSARY TO FACILITATE DRAINAGE)

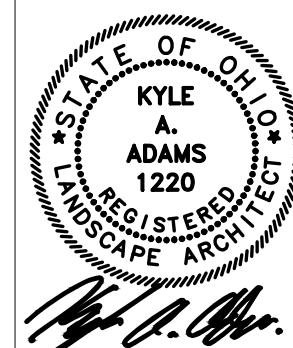
PLANTING SOIL TYPE 1

## PLANTING PROCEDURE

1. EXCAVATE ROOTBALL PIT
2. SET TREE SUCH THAT TOP OF ROOTBALL IS 2-3" HIGHER THAN FINISH GRADE
3. REMOVE ALL TWINE, ROPE, WIRE BASKET, AND BURLAP FROM TOP 1/3 OF ROOTBALL & EXPOSE ROOT FLARE
4. BACKFILL WITH SOIL MIX & "WATER IN"
5. COMPLETE BACKFILLING, CONSTRUCT SAUCER, SPADE-EDGE & ADD MULCH
6. STAKE & GUY SECURELY (AS REQUIRED)
7. INSTALL WATERING DEVICE (AS REQUIRED)

## 01 TREE PLANTING - LEVEL AREA

NTS



DESIGN AGENCY

AMERICAN  
STRUCTUREPOINT  
INC.

DESIGNER

REVIEWER


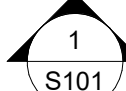




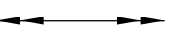
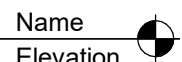
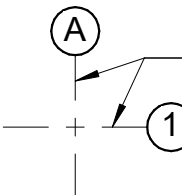




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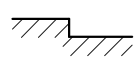
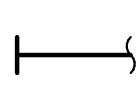

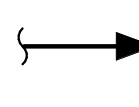
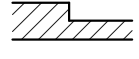
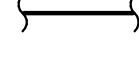
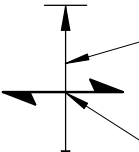

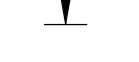

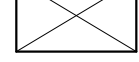



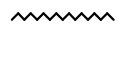
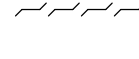




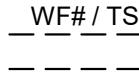
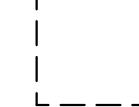
2024.02405

SUBSET TOTAL

SHEET TOTAL

61 70

MISCELLANEOUS SYMBOLS	
	NORTH ARROW
	SECTION NUMBER SHEET NUMBER
	CALLOUT NUMBER SHEET NUMBER
	SOIL
	GRANULAR FILL
	LIMIT OF EXTENT
	CONTINUOUS EXTENT
	ELEVATION REFERENCE
	GRIDLINES
	KEYED PLAN NOTE
	COLUMN NOTATION
	PRECAST/ BRICK SUPPORT
	LINTEL NOTATION
F ##	COLUMN FOOTING NOTATION
WF ##	WALL FOOTING NOTATION
TS ##	THICKENED SLAB NOTATION
GB ##	GRADE BEAM NOTATION
P ##	PIER NOTATION
B ##	CONCRETE BEAM NOTATION
PB ##	POST-TENSIONED CONCRETE BEAM NOTATION
PC ##	PILE CAP NOTATION
BW ##	BEARING WALL NOTATION
SW ##	SHEAR WALL NOTATION
W ##	WALL NOTATION
WP ##	WALL PIER NOTATION

CONCRETE SYMBOLS			
	CHANGE OF SLAB ELEVATION		POST-TENSION TENDON ANCHOR DEAD END LOCATION
	SLOPING SLAB		POST-TENSION TENDON ANCHOR JACKING LOCATION
	CHANGE OF SLAB THICKNESS		REBAR
	LIMIT OF MEMBER OR SPAN MARK		MECHANICAL COUPLER REBAR SPLICE
	DIRECTION OF SPAN		REBAR TERMINATOR
	OPENING		SELF-EXPANDING WATERSTOP
	JOINT LOCATION IN CONCRETE WALLS		PVC WATERSTOP
	INTENTIONALLY ROUGHENED CONSTRUCTION JOINT TO 1/4\"		WELDED WIRE REINFORCING
	FORM-SAVER		COLUMN CONTINUES
	SLAB ON GRADE MARK		COLUMN TERMINATED
			WALL FOOTING OR THICKENED SLAB
			ISOLATED FOOTING

STRUCTURAL DRAWINGS ABBREVIATIONS			
&	AND	JST	JOIST
A/E	ARCHITECT/ENGINEER	JT	JOINT
ACI	AMERICAN CONCRETE INSTITUTE	KB	KNEE BRACE
ADDL	ADDITIONAL	KIP, K	1,000 POUNDS
ADJ	ADJACENT	KO	KNOCK-OUT
AGGR	AGGREGATE	KSI	KIPS PER SQUARE INCH
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	L	ANGLE OR LENGTH
ALT	ALTERNATE	LAB	LABORATORY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	LB	POUND
APA	AMERICAN PLYWOOD ASSOCIATION	LF	LINEAL FOOT
APPROX	APPROXIMATE	LIN	LINEAL, LINEAR
AR	ANCHOR ROD	LLH	LONG LEG HORIZONTAL
ARCH	ARCHITECTURAL	LLV	LONG LEG VERTICAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LONGIT	LONGITUDINAL
AWS	AMERICAN WELDING SOCIETY	LP	LOW POINT
B/	BOTTOM OF	LSL	LAMINATED STRAND LUMBER
BAL	BALANCE	LSLT	LONG SLOTTED HOLE
BC	BOTTOM CHORD	LTWT	LIGHT WEIGHT
BD	BOARD	LVL	LAMINATED VENEER LUMBER
BF	BRACED FRAME	MAS	MASONRY
BLDG	BUILDING	MATL	MATERIAL
BLK	BLOCK	MAX	MAXIMUM
BLKG	BLOCKING	MB	MACHINE BOLT
BM	BEAM	MC	MISCELLANEOUS CHANNEL
BOT	BOTTOM	MECH	MECHANICAL
BRG	BEARING	MEMB	MEMBRANE
BRKT	BRACKET	MEP	MECHANICAL/ ELECTRICAL/ PLUMBING
BTWN	BETWEEN	MF	MOMENT FRAME
BU	BUILT UP	MFR	MANUFACTURER
C	STANDARD CHANNEL	MIN	MINIMUM
CANT	CANTILEVER	MISC	MISCELLANEOUS
CC	CENTER TO CENTER	MO	MASONRY OPENING
CF	COLD FORMED	MULT	MULTIPLE
CG	CENTER OF GRAVITY	N/A	NOT APPLICABLE
CIP	CAST-IN-PLACE	NO	NUMBER
CJ	CONTROL, CONTRACTION OR CONSTRUCTION JOINT	NOM	NOMINAL
CJP	COMPLETE JOINT PENETRATION	NS	NEAR SIDE
CL	CENTERLINE	NTS	NOT TO SCALE
CLR	CLEARANCE, CLEAR	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OD	OUTSIDE DIAMETER
COL	COLUMN	OF	OUTSIDE FACE
CONC	CONCRETE	OFD	OVERFLOW DRAIN
CONN	CONNECTION	OH	OVERHEAD
CONST	CONSTRUCTION	OPNG	OPENING
CONT	CONTINUOUS	OPP	OPPOSITE
CONTR	CONTRACTOR	OPPHD	OPPOSITE HAND
CTR	CENTER	ORIG	ORIGINAL
CTRD	CENTERED	OVS	OVERSIZED HOLE
CU FT	CUBIC FEET	OWJ	PRE-MANUFACTURED OPEN WEB JOIST
CU IN	CUBIC INCH	PAF	POWDER ACTUATED FASTENER
CYD	CUBIC YARD	PC	PRECAST CONCRETE
DBA	DEFORMED BAR ANCHOR	PEMB	PRE-ENGINEERED METAL BUILDING
DBL	DOUBLE	PERIM	PERIMETER
DEG	DEGREE	PERM	PERMANENT
DEMO	DEMOLITION, DEMOLISH	PERP	PERPENDICULAR
DEPT	DEPARTMENT	PJP	PARTIAL JOINT PENETRATION
DET	DETAIL	PL	PLATE
DIA	DIAMETER	PLF	POUNDS PER LINEAL FOOT
DIAG	DIAGONAL	PLYWD	PLYWOOD
DIAPH	DIAPHRAGM	PREFAB	PREFABRICATED
DIM	DIMENSION	PRELIM	PRELIMINARY
DN	DOWN	PREP	PREPARATION, PREPARE
DO	DITTO	PROJ	PROJECTION
DP	DEEP	PS	PRESTRESSED
DWG	DRAWING	PSF	POUNDS PER SQUARE FOOT
DWL	DOWELS	PSI	POUNDS PER SQUARE INCH
EA	EACH	PSL	PARALLEL STRAND LUMBER
EF	EACH FACE	PT	POST-TENSIONED
EJ	EXPANSION JOINT	R	RADIUS
EL, ELEV	ELEVATION	RD	ROOF DRAIN
ELEC	ELECTRICAL	REF	REFERENCE
ENCL	ENCLOSURE	REINF	REINFORCEMENT, REINFORCE
ENGR	ENGINEER	REQD	REQUIRED
EOD	EDGE OF DECK	RO	ROUGH OPENING
EOJ	EDGE OF JOIST	RTU	ROOFTOP MECHANICAL UNIT
EOS	EDGE OF SLAB	S	SLOPE
EQ	EQUAL	SCHED	SCHEDULE
EQPT	EQUIPMENT	SECT	SECTION
ES	EACH SIDE	SF	SQUARE FEET
EW	EACH WAY	SHT	SHEET
EX	EXISTING	SIM	SIMILAR
EXP	EXPANSION	SIP	STRUCTURAL INSULATED PANEL
EXT	EXTERIOR	SOG	SLAB-ON-GRADE
FD	FLOOR DRAIN	SOMD	SLAB ON METAL DECK
FDN	FOUNDATION	SPA	SPACES, SPACE
FIN	FINISH	SPECS	SPECIFICATIONS
FLG	FLANGE	SQ	SQUARE
FLR	FLOOR	SS	STAINLESS STEEL
FS	FAR SIDE	SSLT	SHORT SLOTTED HOLE
FT	FEET	STD	STANDARD
FTG	FOOTING	STIFF	STIFFENER
FTGD	FOOTING DRAIN	STL	STEEL
FV	FIELD VERIFY	STRUC	STRUCTURAL
GA	GAUGE	SYM	SYMMETRICAL
GALV	GALVANIZED	T & B	TOP AND BOTTOM
GB	GRADE BEAM	T/	TOP OF
GL	GLUED LAMINATED TIMBER (GLULAM)	T/GB	TOP OF GRADE BEAM
GRND	GROUND	TBS	MECHANICAL TENSION BUTT SPLICE
GT	GIRDER TRUSS	TC	TOP CHORD
HAS	HEADED ANCHOR STUD	TEMP	TEMPERATURE
HORIZ	HORIZONTAL	THRU	THROUGH
HP	HIGH POINT	TJI	PREFABRICATED WOOD I-JOIST
HSS	HOLLOW STRUCTURAL SECTION	TRANS	TRANSVERSE
HT	HIP TRUSS	TYP	TYPICAL
HVAC	HEATING, VENTILATION, AIR CONDITIONING	UL	UNDERWRITERS' LABORATORY INC.
ID	INSIDE DIAMETER	UNO	UNLESS NOTED OTHERWISE
IF	INSIDE FACE	UT	ULTRA-SONIC TEST
IN	INCH	VERT	VERTICAL
INCL	INCLUDE	W	WIDE FLANGE
INFO	INFORMATION	W/	WITH
INSUL	INSULATION	W/O	WITHOUT
INT	INTERIOR	WD	WOOD
JBRG	JOIST BEARING	WH	WEEP HOLE
		WP	WORK POINT
		WT	WEIGHT, STRUCTURAL T
		WWF, WWR	WELDED WIRE REINFORCEMENT
		XS	EXTRA STRONG (PIPE)
		XXS	DOUBLE EXTRA STRONG (PIPE)

STRUCTURAL INDEX	
SHEET #	SHEET NAME
62	ABBREVIATIONS AND SYMBOLS
63	STRUCTURAL GENERAL NOTES
64	SPECIAL INSPECTION REQUIREMENTS
65	OVERALL FOUNDATION SITE PLAN - BASE BID
66	SMALL TRELLISES FOUNDATION PLAN - ALTERNATE BID #1
67	LARGE TRELLISES FOUNDATION PLAN - ALTERNATE BID #2
68	TWO SWINGS FOUNDATION PLAN - ALTERNATE BID #3
69	FOUNDATION SCHEDULES, SECTIONS, AND DETAILS
70	FOUNDATION SECTIONS AND DETAILS

HORIZONTAL  
SCALE IN FEET



ABBREVIATIONS AND SYMBOLS

DESIGN AGENCY



DESIGNER

LNN

REVIEWER

KCO

PROJECT ID

2024.02405

SUBSET

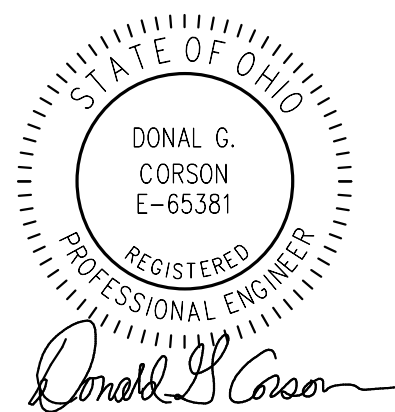
TOTAL

SHEET

62

TOTAL

70





GENERAL

STRUCTURES INDICATED ON THESE DRAWINGS HAVE BEEN DESIGNED FOR THE IN-SERVICE LOADS ONLY. THE METHODS, MEANS, PROCEDURES, AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER CONSTRUCTION IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE STRUCTURES AND RELATED COMPONENTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, TIEDOWNS, ETC.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT CONSTRUCTION LOADS DO NOT EXCEED THE CAPACITY OF ANY STRUCTURAL ELEMENT AT THE TIME THE LOADS ARE APPLIED, INCLUDING BUT NOT LIMITED TO: WEIGHTS OF MATERIALS, WEIGHTS OF EQUIPMENT AND WORKERS, AND ALL LOADS APPLIED FROM TEMPORARY LIFTS, HOISTS AND CRANES, ETC.

THE STRUCTURAL DRAWINGS AND SPECIFICATIONS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS AND SPECIFICATIONS OF ALL OTHER DISCIPLINES, TRADES, AND DELEGATED DESIGN ELEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE STRUCTURAL WORK WITH ALL OTHER APPLICABLE TRADES.

THE GENERAL NOTES ON THE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE FULL WRITTEN MATERIAL SPECIFICATIONS (IF ANY) FOR THE PROJECT.

DO NOT SCALE THE DRAWINGS. REFER TO THE WRITTEN DIMENSIONS AND INFORMATION.

IF A DISCREPANCY IS NOTED ON THE DRAWINGS, GENERAL NOTES, OR SPECIFICATIONS, THE CONTRACTOR SHALL SUBMIT TO THE STRUCTURAL ENGINEER A WRITTEN REQUEST FOR CLARIFICATION AND SHALL NOT PROCEED WITH THE AFFECTED WORK WITHOUT DOCUMENTED RESOLUTION OF THE DISCREPANCY. ALL COSTS RESULTING FROM THE CONTRACTOR IMPROPERLY PROCEEDING WITH THE AFFECTED WORK PRIOR TO DOCUMENTED RESOLUTION OF THE DISCREPANCY, INCLUDING COST OF REMOVAL AND REPLACEMENT OF NON-CONFORMING WORK, SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

PENETRATIONS AND EMBEDDED ITEMS

CONTRACTOR SHALL COORDINATE WITH ALL AFFECTED TRADES THE REQUIRED SIZES, TYPES, AND LOCATIONS OF ALL EMBEDDED ITEMS IN, AND ALL PENETRATIONS THROUGH, STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.

NO PENETRATIONS THROUGH STRUCTURAL ELEMENTS, OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE MADE WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

NO ITEMS (INCLUDING, BUT NOT LIMITED TO, CONDUIT, PIPING, ETC.), OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, SHALL BE EMBEDDED IN STRUCTURAL ELEMENTS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

ALL EMBEDDED ITEMS IN EXPOSED EXTERIOR CONCRETE SHALL BE GALVANIZED, PLASTIC, OR EPOXY-COATED.

CONCRETE MIX DESIGN SUBMITTAL

THE CONTRACTOR SHALL SUBMIT FOR THE REVIEW OF THE STRUCTURAL ENGINEER A MIX DESIGN FOR EACH PROPOSED CLASS OF CONCRETE. EACH MIX DESIGN SHALL BE IDENTIFIED BY A MIX NUMBER OR OTHER UNIQUE IDENTIFICATION. THE CONTRACTOR SHALL NOT VARY FROM THE MIX DESIGNS NOR USE ANY CONCRETE OTHER THAN THE APPROVED MIX DESIGNS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. MIX DESIGN SUBMITTALS SHALL INCLUDE THE FOLLOWING INFORMATION:

- MIX DESIGN NUMBER OR UNIQUE IDENTIFICATION AND INTENDED LOCATION OF PLACEMENT.
- CEMENT TYPE, PROPORTION AND NAME OF MANUFACTURER.
- FLY ASH PROPORTION (WHEN USED), LABORATORY ANALYSIS CERTIFICATION, AND NAME AND LOCATION OF SUPPLIER.
- COARSE AGGREGATE PROPORTION, GRADATION REPORT, NAME AND LOCATION OF SUPPLIER.
- FINE AGGREGATE PROPORTION, GRADATION REPORT, NAME AND LOCATION OF SUPPLIER.
- MIXING WATER PROPORTION AND SOURCE.
- ADMIXTURE DOSAGES, PRODUCT NAME(S) AND MANUFACTURER NAME(S).
- FIBER REINFORCEMENT DOSAGE (WHEN USED), PRODUCT NAME AND MANUFACTURER NAME.
- DESIGN 28-DAY COMPRESSIVE STRENGTH (FC).
- DESIGN SLUMP RANGE.
- DESIGN AIR-ENTRAINMENT (FOR CONCRETE REQUIRING ENTRAINED AIR).
- STATISTICAL ANALYSIS OF LABORATORY STRENGTH TEST DATA IN ACCORDANCE WITH "STANDARD DEVIATION" DETERMINATION OUTLINED IN ACI 318.

DELEGATED DESIGN

FOR ALL SUBMITTALS INDICATED AS "DELEGATED DESIGN," THE CONTRACTOR SHALL ENGAGE A SPECIALTY STRUCTURAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED TO DESIGN AND DETAIL THE ITEMS NOTED IN THE STRUCTURAL SUBMITTALS AND SPECIFICATIONS AS A DELEGATED DESIGN.

DELEGATED DESIGN CALCULATIONS AND RELATED DRAWINGS SHALL CONTAIN THE FOLLOWING, AS A MINIMUM:

- COVER PAGE SIGNED AND SEALED BY THE SPECIALTY STRUCTURAL ENGINEER INCLUDING A STATEMENT OF CERTIFICATION THAT THE SUBMITTED CALCULATIONS ARE IN CONFORMANCE WITH THE DESIGN CRITERIA PROVIDED IN THE CONTRACT DOCUMENTS AND THAT THE RELATED SHOP DRAWINGS ARE IN CONFORMANCE WITH THE SUBMITTED CALCULATIONS.
- TABLE OF CONTENTS, PLACED ON, OR IMMEDIATELY FOLLOWING THE COVER SHEET.
- SUMMARY OF APPLICABLE CODE CRITERIA, LOAD DATA AND PERFORMANCE CRITERIA AS OUTLINED IN THE CONTRACT DOCUMENTS.
- CLEAR DEFINITION OF THE LOCATION(S) IN THE STRUCTURE WHERE EACH CALCULATION APPLIES.
- LOCATION, TYPE, MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE STRUCTURE BY THE DELEGATED DESIGN SYSTEM/COMPONENTS.

SUBMITTALS THAT DO NOT CONTAIN THE INFORMATION NOTED ABOVE MAY, AT THE STRUCTURAL ENGINEER'S DISCRETION, BE REJECTED WITHOUT COMMENT.

THE STRUCTURAL ENGINEER'S REVIEW OF DELEGATED DESIGN SUBMITTALS WILL BE FOR GENERAL CONFORMANCE WITH THE DESIGN LOADING, DESIGN INTENT AND LOADS IMPOSED.

DELEGATED DESIGN CALCULATIONS SHALL BE SUBMITTED PRIOR TO, OR INCLUDED WITH, THE ASSOCIATED SHOP DRAWING SUBMITTAL. DELEGATED DESIGN SHOP DRAWINGS SUBMITTED WITHOUT APPLICABLE REQUIRED CALCULATIONS WILL BE REJECTED.

PRODUCT DATA SUBMITTALS

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL PRODUCT DATA FOR THE SPECIFIC ITEMS LISTED BELOW. CONTRACTOR SHALL NOT USE PRODUCTS OTHER THAN THOSE SUBMITTED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.

SUBMIT HARD COPIES OR ELECTRONIC VERSIONS OF PRODUCT DATA. FOR HARD COPY OPTION, SUBMIT A MINIMUM OF TWO COPIES OF PRODUCT DATA TO THE STRUCTURAL ENGINEER FOR REVIEW (ONE COPY SHALL BE RETAINED BY THE STRUCTURAL ENGINEER). FOR ELECTRONIC OPTION, SUBMIT PRODUCT DATA IN ADOBE PDF FORMAT.

- CONCRETE CURING COMPOUND
- EXPANSION ANCHORS
- ADHESIVE ANCHORS
- NON-SHRINK GROUT

SHOP DRAWING SUBMITTALS

THE CONTRACTOR SHALL PREPARE DETAILED SHOP DRAWINGS TO ENABLE ALL PARTS OF THE WORK TO BE FABRICATED AND CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THESE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, ACCURACY AND FIT OF WORK.

ALL SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMITTAL TO THE STRUCTURAL ENGINEER. DRAWINGS SUBMITTED WITHOUT CONTRACTOR'S REVIEW WILL BE RETURNED UNCHECKED.

PROVIDE ALL SUBMITTALS IN ELECTRONIC PDF FORMAT.

WORK REQUIRING SUBMITTALS FOR STRUCTURAL ENGINEER REVIEW SHALL NOT BE STARTED BY THE CONTRACTOR WITHOUT APPROPRIATE REVIEWED SUBMITTALS. WORK PERFORMED BY THE CONTRACTOR PRIOR TO RECEIVING APPROPRIATE REVIEWED SUBMITTALS SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AS DEEMED NECESSARY BY THE STRUCTURAL ENGINEER, AT THE CONTRACTOR'S EXPENSE, AND WITH NO COST TO THE OWNER.

SUBMIT SHOP DRAWINGS FOR EACH OF THE FOLLOWING ITEMS:

- CONCRETE REINFORCEMENT

SUBMIT DELEGATED DESIGN SHOP DRAWINGS FOR EACH OF THE FOLLOWING ITEMS:

- SCREEN WALL FENCE (INCLUDING DESIGN CALCULATIONS, CONNECTION TO FOUNDATION, ANCHOR LAYOUT, AND REACTIONS)
- FREE STANDING SWINGS (INCLUDING DESIGN CALCULATIONS, CONNECTION TO FOUNDATION, ANCHOR LAYOUT, AND REACTIONS)
- SMALL TRELLIS (INCLUDING DESIGN CALCULATIONS, CONNECTION TO FOUNDATION, ANCHOR LAYOUT, AND REACTIONS)
- LARGE TRELLIS (INCLUDING DESIGN CALCULATIONS, CONNECTION TO FOUNDATION, ANCHOR LAYOUT, AND REACTIONS)
- MONUMENT AND MONUMENT FOUNDATION (INCLUDING DESIGN CALCULATIONS, MEMBER SIZES, MATERIALS AND CONNECTION DETAILS)

OMISSION OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS FROM SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR FURNISHING THESE MATERIALS REGARDLESS OF WHETHER THE SUBMITTALS HAVE BEEN REVIEWED.

THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR SIGNIFIES CONTRACTOR'S ACCEPTANCE OF ALL THE INFORMATION SHOWN "AS IS". CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THE ACCURACY AND COMPLETENESS OF THE INFORMATION PROVIDED. ISSUED DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE OVER ANY ELECTRONIC INFORMATION PROVIDED. ADDENDA, CHANGE ORDERS, SUPPLEMENTAL INSTRUCTIONS ARE NOT NECESSARILY INCLUDED IN THE ELECTRONIC FILES.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS, INCLUDING LATEST ADDENDA, AND TO DISTRIBUTE TO ALL SUBCONTRACTORS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS.

FOUNDATIONS

SEE GEOTECHNICAL REPORT NUMBER 01022630 PREPARED BY PROFESSIONAL SERVICE INDUSTRIES, INC. DATED 05/22/2025 AND ALL APPLICABLE ADDENDA AND AMENDMENTS FOR INFORMATION RELATED TO FOUNDATION EXCAVATIONS AND SOIL-RELATED WORK.

FOUNDATIONS HAVE BEEN DESIGNED BASED ON ASSUMED ALLOWABLE SOIL BEARING PRESSURES INDICATED BELOW. CONTRACTOR SHALL ENGAGE A LICENSED GEOTECHNICAL ENGINEER TO REVIEW THE SOIL CONDITIONS AT THE SITE AS NECESSARY TO CONFIRM THE ALLOWABLE BEARING PRESSURES PRIOR TO PLACEMENT OF THE FOUNDATIONS. CONFIRMATION OF THE ACCEPTABILITY OF THE SOILS SHALL BE REPORTED IN WRITING TO THE STRUCTURAL ENGINEER.

IF ACTUAL ALLOWABLE PRESSURES ARE FOUND TO BE LESS THAN THE ASSUMED VALUES, THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY AND SHALL NOT PROCEED WITH FOUNDATION CONSTRUCTION WITHOUT REVIEW BY THE STRUCTURAL ENGINEER.

DESIGN NET SOIL PRESSURE:

SPREAD FOOTINGS ON NATIVE SOILS:	750 PSF
ALLOWABLE LATERAL BEARING PRESSURE FOR DRILLED PIER FOUNDATIONS:	100 PSF PER FOOT OF EMBEDDED DEPTH (ASSUMED)

WHERE SOILS UNSUITABLE FOR SUPPORT OF FOUNDATIONS AND/OR SLABS ARE NOTED IN THE GEOTECHNICAL REPORT OR DISCOVERED ON SITE, COORDINATE REQUIRED REMEDIATION MEASURES WITH THE GEOTECHNICAL ENGINEER. DO NOT PROCEED WITH FOUNDATION AND SLAB CONSTRUCTION UNTIL REMEDIATION IS COMPLETE AND BEARING SOILS HAVE BEEN REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER.

FOUNDATIONS AND SOILS RELATED WORK SHALL BE INSPECTED BY A LICENSED GEOTECHNICAL ENGINEER. WRITTEN FIELD REPORTS SHALL BE FORWARDED TO THE STRUCTURAL ENGINEER AS SOON AS THEY BECOME AVAILABLE.

SOIL CONDITIONS NOTED DURING CONSTRUCTION, WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT, SHALL BE REPORTED TO THE STRUCTURAL ENGINEER AND GEOTECHNICAL ENGINEER BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.

THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND MAINTAIN APPROPRIATE EXCAVATION PROTECTION, INCLUDING ALL NECESSARY LAYBACKS, SHORING, SHEETING, TIE-BACKS AND OTHER MEASURES AS DETERMINED BY THE CONTRACTOR'S ENGINEER.

EXCAVATIONS FOR SPREAD FOOTINGS, COMBINED FOOTINGS, CONTINUOUS FOOTINGS AND MAT FOUNDATIONS SHALL BE CLEANED AND COMPACTED TO UNIFORM SURFACE AND SHALL BE PROTECTED AND MAINTAINED UNIFORM UNTIL CONCRETE IS PLACED.

FROST DEPTH: 32 INCHES  
SLIDING FRICTION COEFFICIENT = 0.30 (AT 1.0 FACTOR OF SAFETY)

CONCRETE

REINFORCED CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318) AND COMMENTARY (ACI 318R).

MIXING, TRANSPORTING, AND PLACING OF CONCRETE SHALL CONFORM TO THE LATEST EDITION OF THE SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301). READY-MIXED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF ASTM C94. IN CASE OF A DISCREPANCY, THE PLANS AND SPECIFICATIONS SHALL GOVERN.

CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR ASTM C595 TYPE II, UNO.

FLY ASH SHALL CONFORM TO ASTM C618, CLASS C OR F.

NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C33.

WATER-REDUCING ADMIXTURES SHALL CONFORM TO ASTM C494.

AIR-ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260 AND SHALL BE CERTIFIED BY THE MANUFACTURER TO BE COMPATIBLE WITH OTHER ADMIXTURES.

CALCIUM CHLORIDE ADMIXTURES OR ADMIXTURES CONTAINING MORE THAN 0.1 PERCENT CHLORIDE IONS SHALL NOT BE USED.

IN COLD WEATHER CONDITIONS, MIXING, PLACING, FINISHING, CURING AND PROTECTION OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 308R, COLD WEATHER CONCRETING.

IN HOT WEATHER CONDITIONS, MIXING, PLACING, FINISHING, CURING AND PROTECTION OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 305R, HOT WEATHER CONCRETING.

USE OF JOINTS IN CONCRETE ELEMENTS AT LOCATIONS OTHER THAN THOSE INDICATED ON THE DRAWINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW.

SLUMP FOR PUMPED CONCRETE SHALL BE MEASURED AT POINT OF DISCHARGE.

NORMAL WEIGHT CONCRETE SHALL HAVE THE PROPERTIES AS INDICATED IN THE CONCRETE MIX SCHEDULE AND SPECIFICATIONS.

DO NOT INSTALL OR EMBED ALUMINUM ITEMS, INCLUDING BUT NOT LIMITED TO ALUMINUM CONDUIT, INTO OR IN CONTACT WITH CONCRETE.

WHERE NEW CONCRETE IS PLACED AGAINST HARDENED/EXISTING CONCRETE, VERIFY SOUNDNESS OF EXISTING CONCRETE AND REMOVE ALL LOOSE MATERIAL, SNOW, ICE, FROST, WATER, SOIL, DEBRIS AND OTHER DETRIMENTAL MATERIALS PRIOR TO PLACEMENT OF NEW CONCRETE.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 AND SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI, UNO.

REINFORCING BAR DETAILING, FABRICATING, AND PLACING SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING STANDARDS: ACI 301, ACI 315, ACI 318, ACI DETAILING MANUAL (SP68), AND CRSI MANUAL OF STANDARD PRACTICE.

THE CONTRACTOR SHALL PROVIDE BAR SUPPORTS AND SPACERS AS REQUIRED TO MAINTAIN PROPER SUPPORT AND POSITIONING OF THE REINFORCING STEEL THROUGHOUT CONCRETE PLACEMENT OPERATIONS. DESIGN OF THE SUPPORT SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

UNLESS A GREATER AMOUNT OF COVER IS INDICATED ON THE DRAWINGS, PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER OVER REINFORCEMENT AS FOLLOWS:

CONCRETE CAST AGAINST EARTH:	3 INCHES
FOUNDATION TOP REINFORCEMENT:	2 INCHES
FOUNDATION BOTTOM AND SIDE REINFORCEMENT:	3 INCHES
COLUMN LONGITUDINAL REINFORCEMENT:	2 INCHES
COLUMN TIES:	1-1/2 INCHES

REINFORCING STEEL SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT UNLESS INDICATED ON THE CONTRACT DOCUMENTS OR APPROVED BY THE STRUCTURAL ENGINEER.

LAP SPLICES SHALL BE TENSION LAPS IN ACCORDANCE WITH SPLICE/EMBEDMENT TABLES, UNO.

ALL 90 DEGREE AND 180 DEGREE BENDS SHOWN ON THE DRAWINGS SHALL BE STANDARD HOOKS, UNLESS NOTED OTHERWISE.

PROVIDE CORNER BARS OF SAME SIZE AND SPACING AS HORIZONTAL BARS AT CORNERS OF ALL WALLS, WALL FOOTINGS AND GRADE BEAMS. LAP SPLICE CORNERS BARS WITH STRAIGHT BARS.

CONCRETE TESTING

MAKE ONE SET OF TEST CYLINDERS IN ACCORDANCE WITH ASTM C31 FOR EACH DAY'S POUR AND FOR EACH 100 CUBIC YARDS FOR EACH TYPE OF CONCRETE PLACED. EACH SET SHALL INCLUDE ONE SPECIMEN TESTED AT 7 DAYS, 2 SPECIMENS TESTED AT 28 DAYS (3 SPECIMENS TESTED AT 28 DAYS IF USING 4x8 CYLINDERS) AND ONE SPECIMEN RETAINED IN RESERVE TO BE TESTED AT THE DIRECTION OF THE STRUCTURAL ENGINEER. SPARE CYLINDER MAY BE DISCARDED 90 DAYS AFTER CASTING UNLESS DIRECTED OTHERWISE BY THE STRUCTURAL ENGINEER. THIS SET OF TEST CYLINDERS SHALL BE PROTECTED AGAINST FREEZING.

WHEN THE AMBIENT TEMPERATURE IS EXPECTED TO FALL BELOW 40 DEGREES DURING THE COURSE OF A CONCRETE POUR OR SUBSEQUENT CURING PROCESS, AN ADDITIONAL SET OF CONCRETE TEST CYLINDERS SHALL BE MADE AND TESTED. THESE CYLINDERS SHALL BE STORED IMMEDIATELY ADJACENT TO, AND CURED UNDER THE SAME CONDITIONS AS THE BUILDING CONCRETE. SPECIAL CURING BOXES ARE NOT PERMITTED FOR THESE TEST CYLINDERS.

FORWARD COPIES OF TEST RESULTS TO THE ARCHITECT, STRUCTURAL ENGINEER, READY-MIX SUPPLIER AND CONTRACTOR WITHIN 24 HOURS AFTER TESTING.

POTENTIALLY LOW-STRENGTH CONCRETE: WHEN 7-DAY TESTS RESULT IN CONCRETE STRENGTHS LESS THAN 70% OF THE SPECIFIED 28-DAY STRENGTH, THE CONCRETE CONTRACTOR SHALL INVESTIGATE TO DETERMINE THE VALIDITY AND LIKELY CAUSE(S) OF THE LOW STRENGTH TEST RESULTS AND SUBMIT TO THE STRUCTURAL ENGINEER FOR REVIEW. CONCRETE WHICH EXHIBITS STRENGTH BASED ON 7-DAY TESTS BELOW 70% OF THE SPECIFIED 28-DAY COMPRESSIVE STRENGTH MAY BE CONSIDERED DEFECTIVE WORK AND SHALL BE SUBJECT TO REPAIR OR REPLACEMENT BY THE CONTRACTOR AT THE DISCRETION OF THE OWNER AND STRUCTURAL ENGINEER AT NO ADDITIONAL COST TO THE OWNER.

NON-SHRINK GROUT

GROUT SHALL BE A NON-METALLIC, SHRINKAGE RESISTANT (WHEN TESTED IN ACCORDANCE WITH THE LATEST EDITION OF ASTM C827 OR CRD-C621), PREMIXED, NON-CORROSIVE, NON-STAINING PRODUCT CONTAINING PORTLAND CEMENT, SILICA SANDS, SHRINKAGE COMPENSATING AGENTS AND FLUIDITY IMPROVING COMPOUNDS. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (FC) OF 9,000 PSI IN 28 DAYS.

SEPARATION OF DISSIMILAR METALS

DISSIMILAR METALS INCLUDING STRUCTURAL SHAPES, PLATES, CONNECTORS, ETC. SHALL BE ELECTRICALLY ISOLATED TO PREVENT GALVANIC CORROSION VIA NON-CONDUCTIVE WASHERS, SHOULDER WASHERS, GASKETS, COATINGS, OR EQUIVALENT SUBSTITUTE APPROVED BY THE STRUCTURAL ENGINEER, UNO.

DESIGN DATA

NEW STRUCTURES ON THESE DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2021 OHIO BUILDING CODE.

RAIN LOAD DESIGN DATA

ICE THICKNESS = 1"  
CONCURRENT TEMPERATURE = 5 F  
GUST SPEED = 30 MPH

WIND LOAD DESIGN DATA

BASIC WIND SPEED (3-SECOND GUST) = 107 MPH  
WIND EXPOSURE = C  
WIND DESIGN PRESSURE (P) = VARIES WITH HEIGHT AND LOCATION  
MWFRS ANALYSIS PROCEDURE UTILIZED = DIRECTIONAL PROCEDURE (BUILDINGS OF ALL HEIGHTS)

EARTHQUAKE DESIGN DATA

SHORT PERIOD SPECTRAL RESPONSE (S<sub>s</sub>) = 0.133  
1-SECOND SPECTRAL RESPONSE (S<sub>1</sub>) = 0.067  
SEISMIC IMPORTANCE FACTOR (I<sub>e</sub>) = 1.00  
RISK CATEGORY = II  
SITE CLASSIFICATION = D (ASSUMED)  
SEISMIC DESIGN CATEGORY = B  
SHORT PERIOD SPECTRAL RESPONSE (S<sub>ss</sub>) = 0.141  
1-SECOND SPECTRAL RESPONSE (S<sub>s1</sub>) = 0.107

HORIZONTAL  
SCALE IN FEET



STRUCTURAL GENERAL NOTES

DESIGN AGENCY

STRUCTUREPOINT



DESIGNER

LNN

REVIEWER

KCO

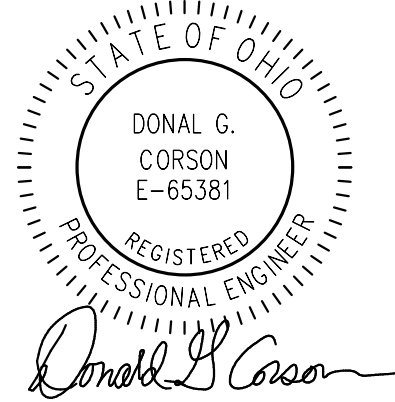
PROJECT ID

2024.02405

SUBSET TOTAL

SHEET TOTAL

63 70



SPECIAL INSPECTIONS SERVICES SCHEDULE - CONCRETE CONSTRUCTION

REFER TO IBC 2021 CHAPTER 17 ACI 318-19				
ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE
REINFORCEMENT	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS (WHERE APPLICABLE) AND VERIFY CORRECT PLACEMENT	Y	PERIODIC	ACI 318 CHAPTER 20, 25.2, 25.3, 26.6.1 THROUGH 26.6.3
REINFORCING BAR WELDING	VERIFY WELDABILITY OF BARS OTHER THAN ASTM A706	N	PERIODIC	AWS D1.4, ACI 318 26.6.4
	INSPECT SINGLE-PASS FILLET WELDS 5/16" MAX	N	PERIODIC	
	INSPECT ALL OTHER WELDS	N	CONTINUOUS	
ANCHORS AND EMBEDDED ITEMS CAST IN CONCRETE	INSPECT ALL ANCHORS AND EMBEDDED ITEMS FOR PROPER SIZE, TYPE, QUANTITY, LOCATION, POSITION, PROJECTION AND EMBEDMENT	Y	PERIODIC	ACI 318 17.8.2
ANCHORS POST-INSTALLED IN HARDENED CONCRETE	INSPECT ADHESIVE ANCHORS WHEN INSTALLED HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	Y	CONTINUOUS	ACI 318 17.8.2.4
MECHANICAL ANCHORS AND ADHESIVE ANCHORS OTHER THAN ABOVE	INSPECT ANCHORS FOR PROPER SIZE, TYPE, QUANTITY, LOCATION, POSITION AND EMBEDMENT	Y	PERIODIC	ACI 318 17.8.2
CONCRETE MIX	VERIFY USE OF REQUIRED CONCRETE MIX AT EACH APPLICATION	Y	PERIODIC	ACI 318 CHAPTER 19, 26.4.3, 26.4.4 IBC 1904.1, 1904.2
CONCRETE TESTING	VERIFY THAT CONCRETE SAMPLING AND TESTING IS PERFORMED IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS	Y	CONTINUOUS	ASTM C172, ASTM C31, ACI 318 26.5, 26.12
CONCRETE PLACEMENT	INSPECT FOR PROPER PLACEMENT TECHNIQUES	Y	CONTINUOUS	ACI 318 26.5
SHOTCRETE PLACEMENT	INSPECT FOR PROPER APPLICATION TECHNIQUES	N	CONTINUOUS	ACI 318 26.5
CONCRETE CURING	VERIFY MAINTENANCE OF PROPER CONCRETE TEMPERATURE AND CURING TECHNIQUES	Y	PERIODIC	ACI 318 26.5.3 THROUGH 26.5.5
PRESTRESSED CONCRETE	INSPECT FOR PROPER APPLICATION OF PRESTRESSING FORCES	N	CONTINUOUS	ACI 318 26.10
PRESTRESSED CONCRETE	INSPECT FOR PROPER GROUTING OF BONDED PRESTRESSING TENDONS	N	CONTINUOUS	ACI 318 26.10
ERECTION OF PRECAST CONCRETE MEMBERS	VERIFY WELDING PROCEDURE SPECIFICATIONS ARE FOLLOWED	Y	PERIODIC	ACI 318 26.9
ERECTION OF PRECAST CONCRETE MEMBERS	INSPECT ALL CONNECTIONS OF THE PRECAST ELEMENTS TO THE FOUNDATIONS FOR CONFORMANCE TO THE CONTRACT DOCUMENTS	Y	PERIODIC	
ERECTION OF PRECAST CONCRETE MEMBERS	INSPECT ALL CONNECTIONS OF THE PRECAST ELEMENTS TO THE STRUCTURAL FRAMING FOR CONFORMANCE TO THE CONTRACT DOCUMENTS	Y	PERIODIC	
PRECAST CONCRETE DIAPHRAGMS WITH JOINTS CLASSIFIED AS MODERATE OR HIGH DEFORMABILITY (MDE OR HDE) IN STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY C, D, E OR F	INSPECT CONNECTIONS FOR INSTALLATION OF EMBEDDED PARTS	N	CONTINUOUS	ACI 318 26.13.1.3 ACI 550.5
	INSPECT CONNECTIONS FOR COMPLETION OF CONTINUITY REINFORCEMENT ACROSS THE JOINTS	N	CONTINUOUS	
	INSPECT FOR COMPLETION OF CONNECTIONS	N	CONTINUOUS	
PRECAST CONCRETE DIAPHRAGM CONNECTIONS	INSPECT ALL CONNECTION INSTALLATION TOLERANCES FOR COMPLIANCE WITH ACI 550.5	N	PERIODIC	ACI 318 26.13.1.3
IN-SITU CONCRETE STRENGTH - PRE-STRESSING	VERIFY IN-PLACE CONCRETE STRENGTH PRIOR TO STRESSING TENDONS IN POST-TENSIONED CONCRETE	N	PERIODIC	ACI 318 26.11.2
IN-SITU CONCRETE STRENGTH - FORMS AND SHORES	VERIFY IN-PLACE CONCRETE STRENGTH PRIOR TO REMOVAL OF FORMS AND SHORES FROM BEAMS AND STRUCTURAL SLABS	N	PERIODIC	ACI 318 26.11.2
FORMWORK	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	Y	PERIODIC	ACI 318 26.11.2
WATER STOPS	VERIFY ALL WATER STOPS ARE PROPERLY INSTALLED AND ANCHORED INTO POSITION PRIOR TO PLACEMENT OF CONCRETE	N	PERIODIC	

SPECIAL INSPECTIONS SERVICES SCHEDULE - SOILS AND EARTHWORK

REFER TO IBC 2021 CHAPTER 17				
ITEM	TASK	APPLICABLE TO PROJECT (Y/N)	FREQUENCY	REFERENCE
BEARING SOILS FOR SHALLOW FOUNDATIONS	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	Y	PERIODIC	IBC TABLE 1705.6
EXCAVATIONS	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	Y	PERIODIC	IBC TABLE 1705.6
FILL MATERIALS	VERIFY CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS IS PERFORMED	Y	PERIODIC	IBC TABLE 1705.6
FILL MATERIAL PLACEMENT	DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	Y	CONTINUOUS	IBC TABLE 1705.6
SUBGRADE PREPARATION	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	Y	PERIODIC	IBC TABLE 1705.6
BACKFILL AT BELOW-GRADE WALLS	VERIFY THAT BELOW-GRADE WALLS WITH UNEVEN BACKFILL CONDITIONS ARE NOT BACKFILLED UNTIL FLOOR CONSTRUCTION AT TOPS OF WALLS (OR OTHER PERMANENT BRACING WHERE APPLICABLE) IS COMPLETE OR TEMPORARY BRACING IS PROVIDED	Y	PERIODIC	

SPECIAL INSPECTION

THE OWNER OR OWNER'S AGENT SHALL EMPLOY INDEPENDENT AGENCY(IES) OR INDIVIDUAL(S) TO PROVIDE SPECIAL INSPECTION FOR ITEMS AS INDICATED ON THE DRAWINGS.

SPECIAL INSPECTION IS A MANDATORY REQUIREMENT FOR VERIFYING CONFORMANCE OF THE INDICATED CONSTRUCTION. SPECIAL INSPECTION IS REQUIRED IN ADDITION TO ALL MATERIAL TESTS AND INSPECTIONS IDENTIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS.

THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON, WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER, FOR INSPECTION OF EACH PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

"PERIODIC" SPECIAL INSPECTION IS DEFINED AS "THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK."

"CONTINUOUS" SPECIAL INSPECTION IS DEFINED AS "THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED."

SUBMIT TO THE STRUCTURAL ENGINEER FOR REVIEW A MINIMUM OF 14 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION OF ELEMENTS REQUIRING SPECIAL INSPECTION THE FOLLOWING:

- NAME(S), ADDRESS(ES), TELEPHONE NUMBER(S), EMAIL ADDRESS(ES), AND STATEMENT(S) OF QUALIFICATIONS OF ALL SPECIAL INSPECTOR(S) TO BE ENGAGED ON THE PROJECT.
- A LISTING OF ALL ITEMS TO RECEIVE SPECIAL INSPECTION, DESIGNATION WHETHER INSPECTIONS WILL BE CONTINUOUS OR PERIODIC AND THE NAME OF THE INDIVIDUAL THAT WILL BE PERFORMING INSPECTION FOR EACH ITEM.

THE CONTRACTOR SHALL COORDINATE WITH THE SPECIAL INSPECTOR SUFFICIENTLY IN ADVANCE OF WORK REQUIRING SPECIAL INSPECTION AND SHALL PROVIDE ACCESS TO THE SITE AND TO THE CONSTRUCTION DOCUMENTS (CURRENT DRAWINGS AND SPECIFICATION(S)) FOR THE SPECIAL INSPECTOR TO CARRY OUT THE REQUIRED OPERATIONS.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK REQUIRING SPECIAL INSPECTION FOR CONFORMANCE TO THE CONSTRUCTION DOCUMENTS. ALL NON-CONFORMING WORK SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE IMMEDIATE ATTENTION OF THE OWNER OR OWNER'S AGENT AND STRUCTURAL ENGINEER.

THE SPECIAL INSPECTOR SHALL SUBMIT PERIODIC PROGRESS REPORTS TO THE OWNER OR OWNER'S AGENT, CONTRACTOR AND STRUCTURAL ENGINEER IDENTIFYING ALL SPECIAL INSPECTION OPERATIONS PERFORMED. REPORTS SHALL BE SUBMITTED NO MORE THAN 7 DAYS FOLLOWING EACH SPECIAL INSPECTION OPERATION. REPORTS SHALL IDENTIFY THE ITEM(S) INSPECTED AND AN INDICATION OF WHETHER THE INSPECTED ITEMS WERE IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.

AT THE COMPLETION OF ALL WORK REQUIRING SPECIAL INSPECTION, THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT TO THE OWNER OR OWNER'S AGENT, CONTRACTOR AND STRUCTURAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE SPECIAL INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS.

FAILURE TO PERFORM SPECIAL INSPECTION FOR THE INDICATED CONSTRUCTION OR FAILURE TO CORRECT NON-CONFORMING WORK SHALL CONSTITUTE A BASIS FOR REJECTION OF THE WORK AND REMOVAL AND REPLACEMENT BY THE GENERAL CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, INCLUDING, BUT NOT LIMITED TO:

- THE COST OF REMOVAL AND REPLACEMENT OF ALL WORK FOR WHICH SPECIAL INSPECTION WAS REQUIRED BUT NOT PERFORMED, INCLUDING THE COST OF TESTING AND SPECIAL INSPECTION FOR THE REPLACEMENT WORK.
- THE COST OF ALL RELATED WORK MADE NECESSARY BY THE REMOVAL AND REPLACEMENT OF THE UNINSPECTED WORK PER ITEM 1 ABOVE.
- THE COST FOR DESIGN PROFESSIONAL'S SERVICES RELATED TO ALL WORK FOR WHICH SPECIAL INSPECTION WAS REQUIRED BUT NOT PERFORMED AND SERVICES RELATED TO THE REPLACEMENT WORK.

PROVIDE SPECIAL INSPECTION FOR THE FOLLOWING CONSTRUCTION:

SOILS AND EARTHWORK  
CONCRETE CONSTRUCTION

SEE TABLES ON THE DRAWINGS FOR SPECIAL INSPECTION PROGRAM REQUIREMENTS.

HORIZONTAL  
SCALE IN FEET



SPECIAL INSPECTION  
REQUIREMENTS

DESIGN AGENCY



DESIGNER

LNN

REVIEWER

KCO

PROJECT ID

2024.02405

SUBSET

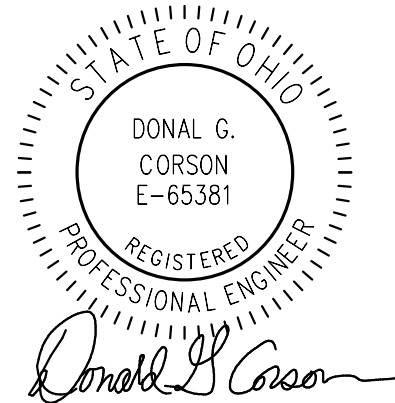
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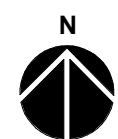
SHEET

64

TOTAL

70





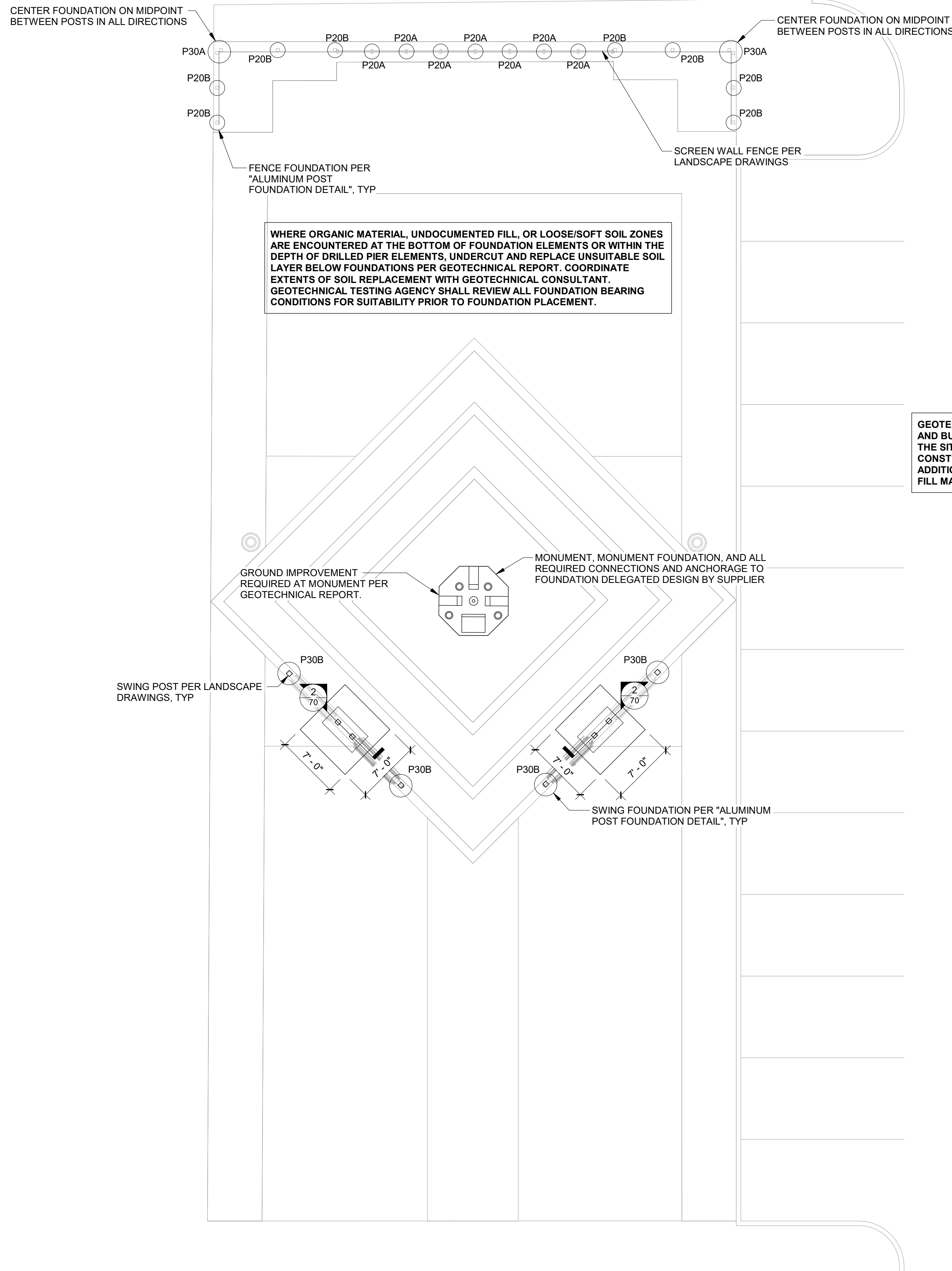
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## OVERALL FOUNDATION SITE PLAN - BASE BID

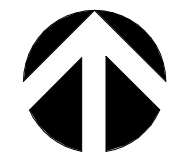
1/8" = 1'-0"

### GENERAL PLAN NOTES:

- REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
- SEE LANDSCAPE AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
- COORDINATE LOCATIONS OF ALL EMBEDS / OPENINGS / SLEEVES PRIOR TO PLACING CONCRETE.
- PLACE FOUNDATION CONCRETE MONOLITHICALLY.
- COORDINATE PLACEMENT SEQUENCE OF ADJACENT PIERS WITH GEOTECHNICAL CONSULTANT TO AVOID COMPROMISING SUPPORTING SOILS.



HORIZONTAL  
SCALE IN FEET



NORTH

## OVERALL FOUNDATION SITE PLAN - BASE BID

DESIGN AGENCY



DESIGNER

LNN

REVIEWER

KCO

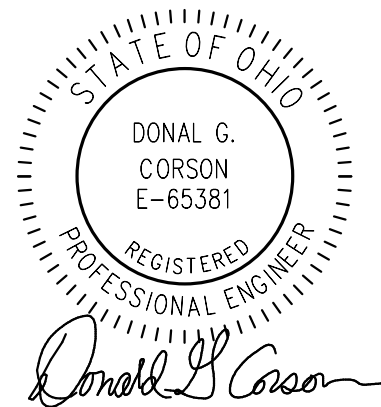
PROJECT ID

2024.02405

SUBSET TOTAL

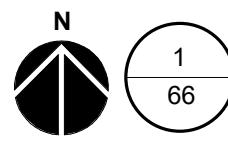
SHEET TOTAL

65 70





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### SMALL TRELLISES FOUNDATION PLAN - BID ALTERNATE #1

1/4" = 1'-0"

#### GENERAL PLAN NOTES:

1. REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
2. SEE LANDSCAPE AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
3. COORDINATE LOCATIONS OF ALL EMBEDS / OPENINGS / SLEEVES PRIOR TO PLACING CONCRETE.
4. PLACE FOUNDATION CONCRETE MONOLITHICALLY.
5. COORDINATE PLACEMENT SEQUENCE OF ADJACENT PIERS WITH GEOTECHNICAL CONSULTANT TO AVOID COMPROMISING SUPPORTING SOILS.

COMBINED SWING AND SMALL TRELLIS FOUNDATION. CENTER FOUNDATIONS ON MID POINT BETWEEN POSTS IN ALL DIRECTIONS, TYP AT THIS CONDITION

SMALL TRELLIS POST PER LANDSCAPE DRAWINGS, TYP

SMALL TRELLIS ISOLATED FOUNDATION, TYP

SWING POST PER LANDSCAPE DRAWINGS, TYP

MONUMENT PER BASE BID PLAN

WHERE ORGANIC MATERIAL, UNDOCUMENTED FILL, OR LOOSE/SOFT SOIL ZONES ARE ENCOUNTERED AT THE BOTTOM OF FOUNDATION ELEMENTS OR WITHIN THE DEPTH OF DRILLED PIER ELEMENTS, UNDERCUT AND REPLACE UNSUITABLE SOIL LAYER BELOW FOUNDATIONS PER GEOTECHNICAL REPORT. COORDINATE EXTENTS OF SOIL REPLACEMENT WITH GEOTECHNICAL CONSULTANT. GEOTECHNICAL TESTING AGENCY SHALL REVIEW ALL FOUNDATION BEARING CONDITIONS FOR SUITABILITY PRIOR TO FOUNDATION PLACEMENT.

GEOTECHNICAL REPORT INDICATES THAT UNDOCUMENTED FILL AND BURIED STRUCTURES WERE ENCOUNTERED THROUGHOUT THE SITE. WHERE A BURIED STRUCTURE IS FOUND DURING CONSTRUCTION, COMPLETE REMOVAL IS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. REPLACE WITH STRUCTURAL FILL MATERIAL AS OUTLINED IN THE GEOTECHNICAL REPORT.

HORIZONTAL  
SCALE IN FEET



## SMALL TRELLISES FOUNDATION PLAN - ALTERNATE BID #1

DESIGN AGENCY



DESIGNER

LNN

REVIEWER

KCO

PROJECT ID

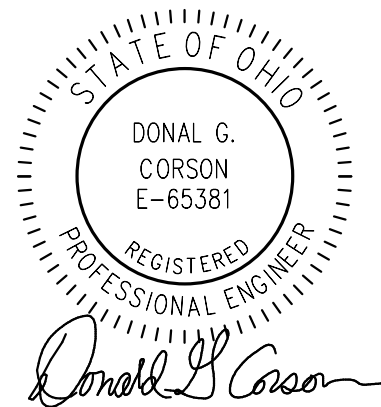
2024.02405

SUBSET TOTAL

SHEET TOTAL

66

70





LARGE TRELLIS FOUNDATION  
PLAN - ALTERNATE BID #2

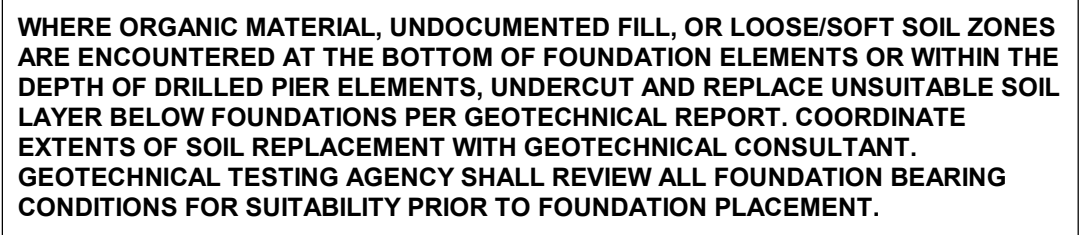


AMERICAN  
**STRUCTUREPOINT**  
INC.

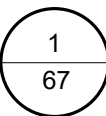
REVIEWER  
KCO

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92	10
93	10
94	10
95	10
96	10
97	10
98	10
99	10
100	10

NET	TOTAL
67	70



GEOTECHNICAL REPORT INDICATES THAT UNDOCUMENTED FILL AND BURIED STRUCTURES WERE ENCOUNTERED THROUGHOUT THE SITE. WHERE A BURIED STRUCTURE IS FOUND DURING CONSTRUCTION, COMPLETE REMOVAL IS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. REPLACE WITH STRUCTURAL FILL MATERIAL AS OUTLINED IN THE GEOTECHNICAL REPORT.

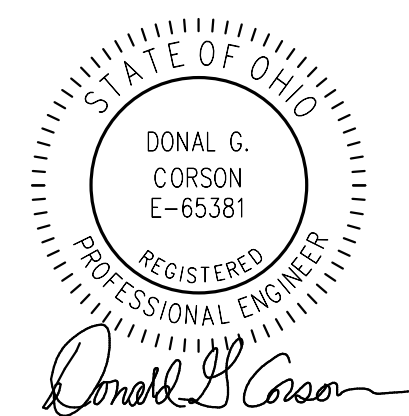


**LARGE TRELLIS FOUNDATION PLAN - ALTERNATE BID #2**

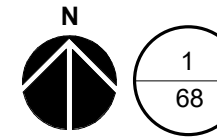
$$\frac{1}{4}'' = 1'-0''$$

**GENERAL PLAN NOTES:**

1. REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
2. SEE LANDSCAPE AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
3. COORDINATE LOCATIONS OF ALL EMBEDS / OPENINGS / SLEEVES PRIOR TO PLACING CONCRETE.
4. PLACE FOUNDATION CONCRETE MONOLITHICALLY.
5. COORDINATE PLACEMENT SEQUENCE OF ADJACENT PIERS WITH GEOTECHNICAL CONSULTANT TO AVOID COMPROMISING SUPPORTING SOILS.



6/5/2025 2:47:35 PM



**TWO SWINGS FOUNDATION PLAN - ALTERNATE BID #3**

1/4" = 1'-0"

**GENERAL PLAN NOTES:**

1. REFER TO STRUCTURAL GENERAL NOTES, LEGEND, SCHEDULES, TYPICAL DETAILS, AND SPECIAL INSPECTION REQUIREMENTS FOR ADDITIONAL INFORMATION.
2. SEE LANDSCAPE AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
3. COORDINATE LOCATIONS OF ALL EMBEDS / OPENINGS / SLEEVES PRIOR TO PLACING CONCRETE.
4. PLACE FOUNDATION CONCRETE MONOLITHICALLY.
5. COORDINATE PLACEMENT SEQUENCE OF ADJACENT PIERS WITH GEOTECHNICAL CONSULTANT TO AVOID COMPROMISING SUPPORTING SOILS.

COMBINED SWING AND SMALL TRELLIS FOUNDATION. CENTER FOUNDATIONS ON MID POINT BETWEEN POSTS IN ALL DIRECTIONS, TYP AT THIS CONDITION

SWING POST PER LANDSCAPE DRAWINGS, TYP

SMALL TRELLIS POST PER LANDSCAPE DRAWINGS, TYP

SMALL TRELLIS ISOLATED FOUNDATION, TYP

MONUMENT PER BASE BID PLAN

WHERE ORGANIC MATERIAL, UNDOCUMENTED FILL, OR LOOSE/SOFT SOIL ZONES ARE ENCOUNTERED AT THE BOTTOM OF FOUNDATION ELEMENTS OR WITHIN THE DEPTH OF DRILLED PIER ELEMENTS, UNDERCUT AND REPLACE UNSUITABLE SOIL LAYER BELOW FOUNDATIONS PER GEOTECHNICAL REPORT. COORDINATE EXTENTS OF SOIL REPLACEMENT WITH GEOTECHNICAL CONSULTANT. GEOTECHNICAL TESTING AGENCY SHALL REVIEW ALL FOUNDATION BEARING CONDITIONS FOR SUITABILITY PRIOR TO FOUNDATION PLACEMENT.

GEOTECHNICAL REPORT INDICATES THAT UNDOCUMENTED FILL AND BURIED STRUCTURES WERE ENCOUNTERED THROUGHOUT THE SITE. WHERE A BURIED STRUCTURE IS FOUND DURING CONSTRUCTION, COMPLETE REMOVAL IS REQUIRED AT NO ADDITIONAL COST TO THE OWNER. REPLACE WITH STRUCTURAL FILL MATERIAL AS OUTLINED IN THE GEOTECHNICAL REPORT.

DESIGN AGENCY



DESIGNER

LNN

REVIEWER

KCO

PROJECT ID

2024.02405

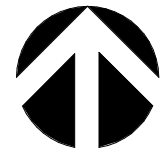
SUBSET TOTAL

SHEET TOTAL

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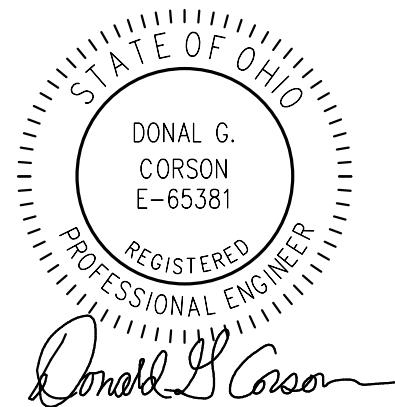
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HORIZONTAL  
SCALE IN FEET



NORTH

**TWO SWINGS FOUNDATION PLAN -  
ALTERNATE BID #3**





CONCRETE MIX SCHEDULE								
CONCRETE USAGE	28-DAY COMPRESSIVE STRENGTH (PSI)	EXPOSURE CLASS (NOTE 4)	MAX CEMENT REPLACEMENT (NOTE 5)	MAXIMUM W/CM RATIO	AIR CONTENT (PERCENT)	MAXIMUM WATER-SOLUBLE CHLORIDE ION (CL-) CONTENT (% WT)	MAXIMUM AGGREGATE SIZE (INCHES)	COMMENTS
ALL FOUNDATIONS AND PIERS	4,500	F2 S0 W1 C1	50%	0.45	6 +/- 1.5	0.30%	1	
<div>NOTES:</div> <div>1. SEE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.</div> <div>2. ALL USAGES IN THE TABLE ABOVE ARE ASSUMED TO BE DRY SERVICE CONDITIONS NOT EXPOSED TO FREEZE-THAW CYCLES, DE-ICING CHEMICALS, OR SALTS UNO.</div> <div>3. ALL CONCRETE IS NORMAL WEIGHT AND CEMENT IS ASTM C150 TYPE 1 OR ASTM C595 TYPE II, UNO. DO NOT USE LIGHTWEIGHT CONCRETE UNLESS SPECIFICALLY INDICATED.</div> <div>4. EXPOSURE CLASSES AND CATEGORIES ARE AS DEFINED IN CHAPTER 19 OF THE LATEST EDITION OF ACI 318.</div> <div>5. ACCEPTABLE CEMENT REPLACEMENT MATERIAL, WHERE PERMITTED MAY BE ANY COMBINATION OF ASTM C618 TYPE C OR F FLY ASH, ASTM C989 GROUND GRANULATED BLAST-FURNACE SLAG (GGBS), OR ASTM C1240 SILICA FUME (MICROSILICA). THE FOLLOWING ADDITIONAL LIMITS ALSO APPLY TO EXPOSURE CLASS F3 CONCRETE:</div> <div>A. MAXIMUM FLY ASH: 25%</div> <div>B. MAXIMUM SLAG: 50%</div> <div>C. MAXIMUM SILICA FUME: 10%</div> <div>D. MAXIMUM COMBINED FLY ASH AND SILICA FUME: 35%</div> <div>E. MAXIMUM TOTAL SUPPLEMENTARY CEMENTITIOUS MATERIAL: 50%</div> <div>6. TARGET SLUMP SHALL BE DETERMINED BY THE CONTRACTOR AS NEEDED FOR PROPER PLACEMENT.</div>								

REINFORCING BAR LAP LENGTHS: Lt, Lc  
AND DEVELOPMENT LENGTHS: Ld, Ldh,  
Ldt, Ldc (INCHES)

	f'c = 4000 PSI & 4500 PSI					
BAR SIZE	Lt	Lc	Ld	Ldh	Ldt	Ldc
#3	16	12	15	8	6	8
#4	25	15	19	10	8	10
#5	36	19	24	12	10	12
#6	48	23	29	15	12	15
#7	76	27	42	17	14	17
#8	93	30	48	19	16	19
#9	95	34	54	22	18	22
#10	109	39	61	25	20	25
#11	127	43	67	27	22	27

- NOTES:
1. db = DIAMETER OF BAR BEING DEVELOPED

Lt = "CLASS B" TENSION LAP SPLICE LENGTH

Lc = COMPRESSION LAP SPLICE LENGTH

Ld = TENSION DEVELOPMENT LENGTH OF STRAIGHT BARS

Ldh = TENSION DEVELOPMENT LENGTH OF HOOKED BARS

Ldt = TENSION DEVELOPMENT LENGTH OF HEADED BARS

Ldc = COMPRESSION DEVELOPMENT LENGTH OF STRAIGHT BARS
2. TABULATED VALUES ARE CALCULATED PER THE PROVISIONS OF ACI 318
3. TABULATED VALUES ARE FOR NON-EPOXY-COATED GRADE 60 REINFORCEMENT IN NORMAL WEIGHT CONCRETE.
4. WHERE BARS OF DIFFERENT SIZES ARE LAPPED IN TENSION, THE LAP LENGTH SHALL BE THE LARGER OF Ld OF THE LARGER BAR AND Lt OF THE SMALLER BAR.
5. WHERE BARS OF DIFFERENT SIZES ARE LAPPED IN COMPRESSION, THE LAP LENGTH SHALL BE THE LARGER OF Ldc OF THE LARGER BAR AND Lc OF THE SMALLER BAR.
6. TABULATED VALUES FOR Lt ASSUME THE FOLLOWING:

A) MINIMUM CLEAR SPACING BETWEEN REBAR IS THE GREATER OF THE BAR DIAMETER AND 1 INCH.

B) MINIMUM CLEAR COVER IS 3/4 INCHES OR GREATER.

C) BARS BEING SPLICED ARE NOT REQUIRED TO BE ENCLOSED WITHIN REINFORCEMENT ACTING AS CONFINEMENT TIES
7. TABULATED VALUES FOR Ld ASSUME ONE OF THE FOLLOWING CONDITIONS IS PROVIDED; WHERE THESE CONDITIONS AREN'T ABLE TO BE MET, CONTACT ENGINEER OF RECORD FOR CONDITION SPECIFIC VALUES:

A) BARS BEING DEVELOPED ARE ENCLOSED WITHIN REINFORCEMENT ACTING AS CONFINEMENT TIES, AND CLEAR SPACING OF BARS BEING DEVELOPED IS GREATER THAN OR EQUAL TO db, AND CLEAR COVER TO BAR BEING DEVELOPED IS GREATER THAN OR EQUAL TO db

B) CLEAR SPACING OF BARS BEING DEVELOPED IS GREATER THAN OR EQUAL TO 2 TIMES db, AND CLEAR COVER TO BAR BEING DEVELOPED IS GREATER THAN OR EQUAL TO db
8. TABULATED VALUES FOR Ldt ARE ONLY VALID FOR NORMAL WEIGHT CONCRETE WITH CLEAR COVER NOT LESS THAN 2 TIMES db AND CLEAR SPACING NOT LESS THAN 4 TIMES db (CLEAR COVER AND SPACING REQUIREMENTS LISTED IN THE GENERAL NOTES APPLY TO THE HEAD/ANCHOR, CLEAR COVER AND SPACING IN THIS PROVISION ARE WITH RESPECT TO THE REINFORCING ONLY)
9. LENGTHS IN THE SCHEDULE SHALL BE MULTIPLIED BY THE FOLLOWING MODIFICATION FACTORS AS FOLLOWS:

A) WHERE GRADE 75 REINFORCING IS USED, MULTIPLY THE TABLE VALUES AS FOLLOWS:

i) Lt, Ld, Ldh, Ldc x1.25

ii) Lc x1.45

iii) Ldt NOT PERMITTED

B) WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE BAR, ALSO REFERRED TO AS "TOP BARS" ("OTHER BARS" ARE ALL OTHER REINFORCING WHERE THIS DOES NOT APPLY)

i) Lt, Ld x1.30

ii) Lc, Ldh, Ldt, Ldc NO MODIFICATION

C) WHERE EPOXY REBAR IS USED, MULTIPLY THE TABLE VALUES AS FOLLOWS:

i) Lt, Ld (TOP BARS) x1.31

ii) Lt, Ld (OTHER BARS) x1.50

iii) Ldh, Ldt x1.20

iv) Lc, Ldc NO MODIFICATION

D) WHERE LIGHT-WEIGHT CONCRETE IS USED, MULTIPLY TABLE VALUE AS FOLLOWS:

i) Lt, Ld, Ldh, Ldc x1.33

ii) Lc, Ldt NOT PERMITTED

10. THIS TABLE IS NOT VALID FOR BUNDLED BARS.

HORIZONTAL  
SCALE IN FEET



FOUNDATION SCHEDULES,  
SECTIONS, AND DETAILS

DESIGN AGENCY



DESIGNER

LNN

REVIEWER

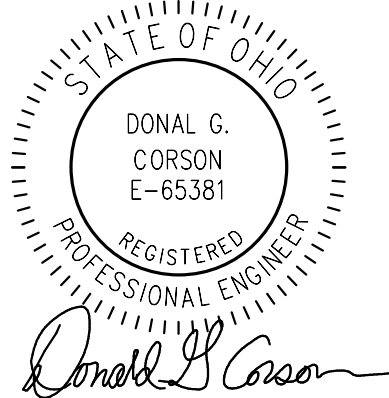
KCO

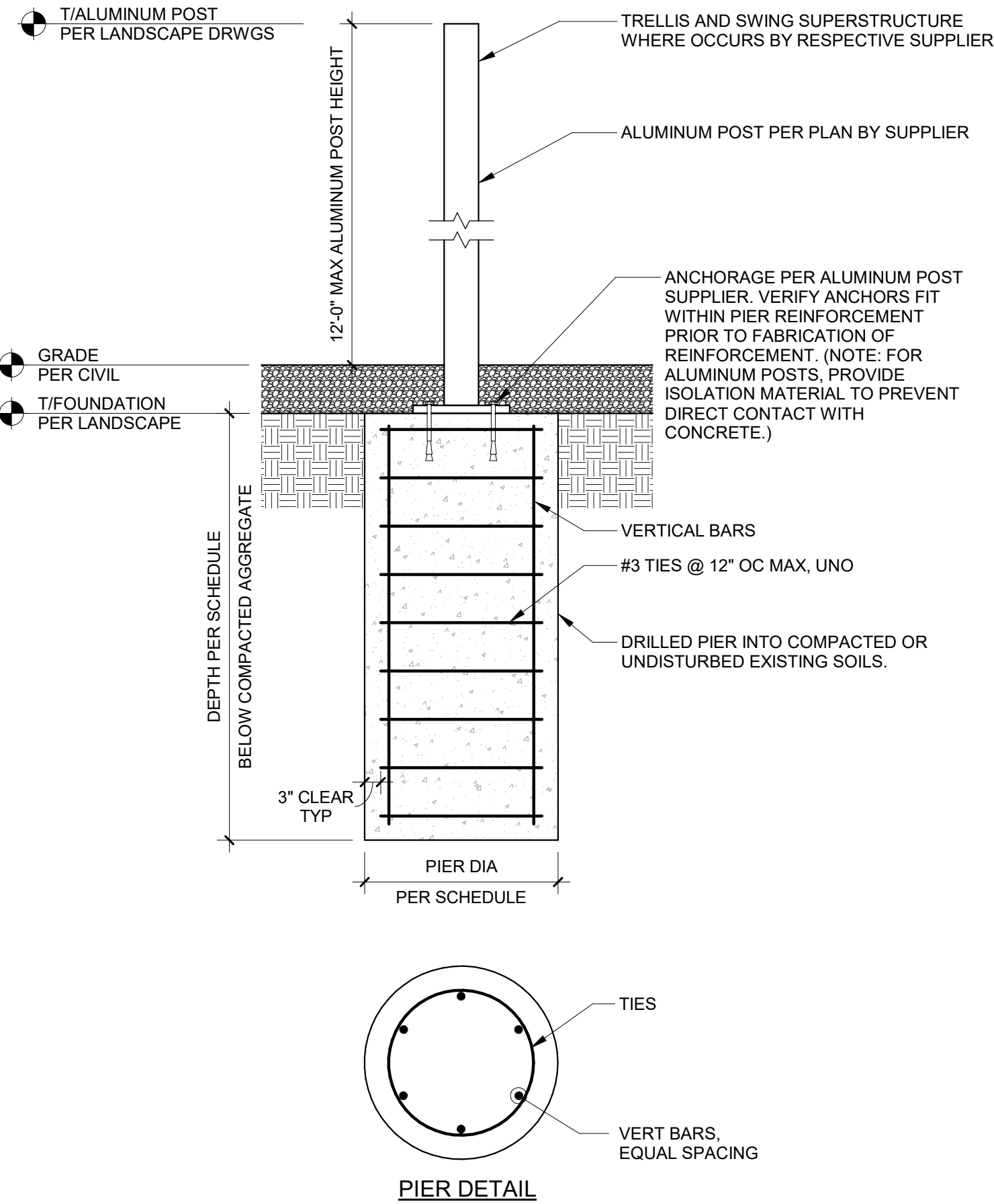
PROJECT ID

2024.02405

SUBSET TOTAL

SHEET TOTAL  
69 70

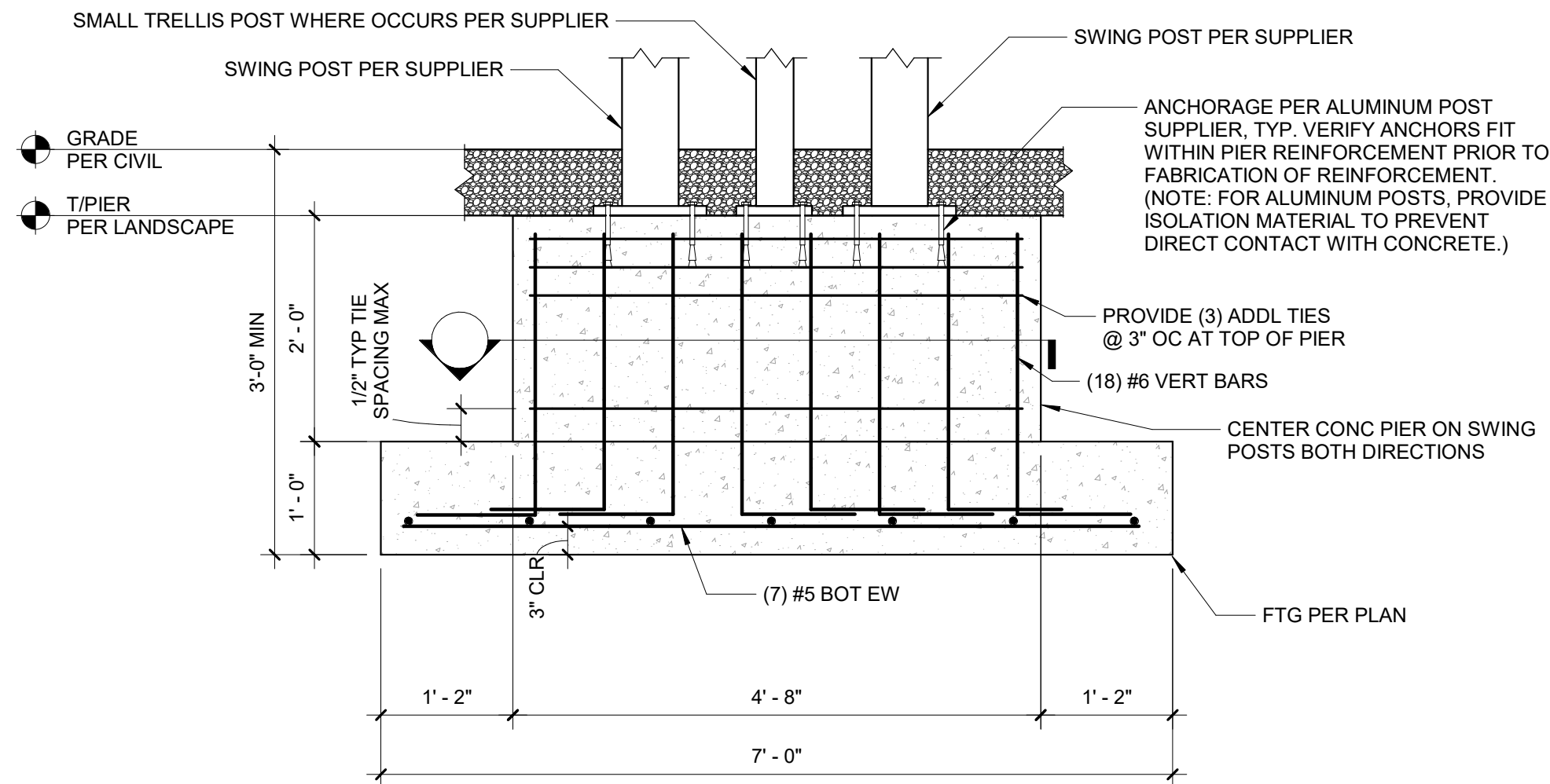
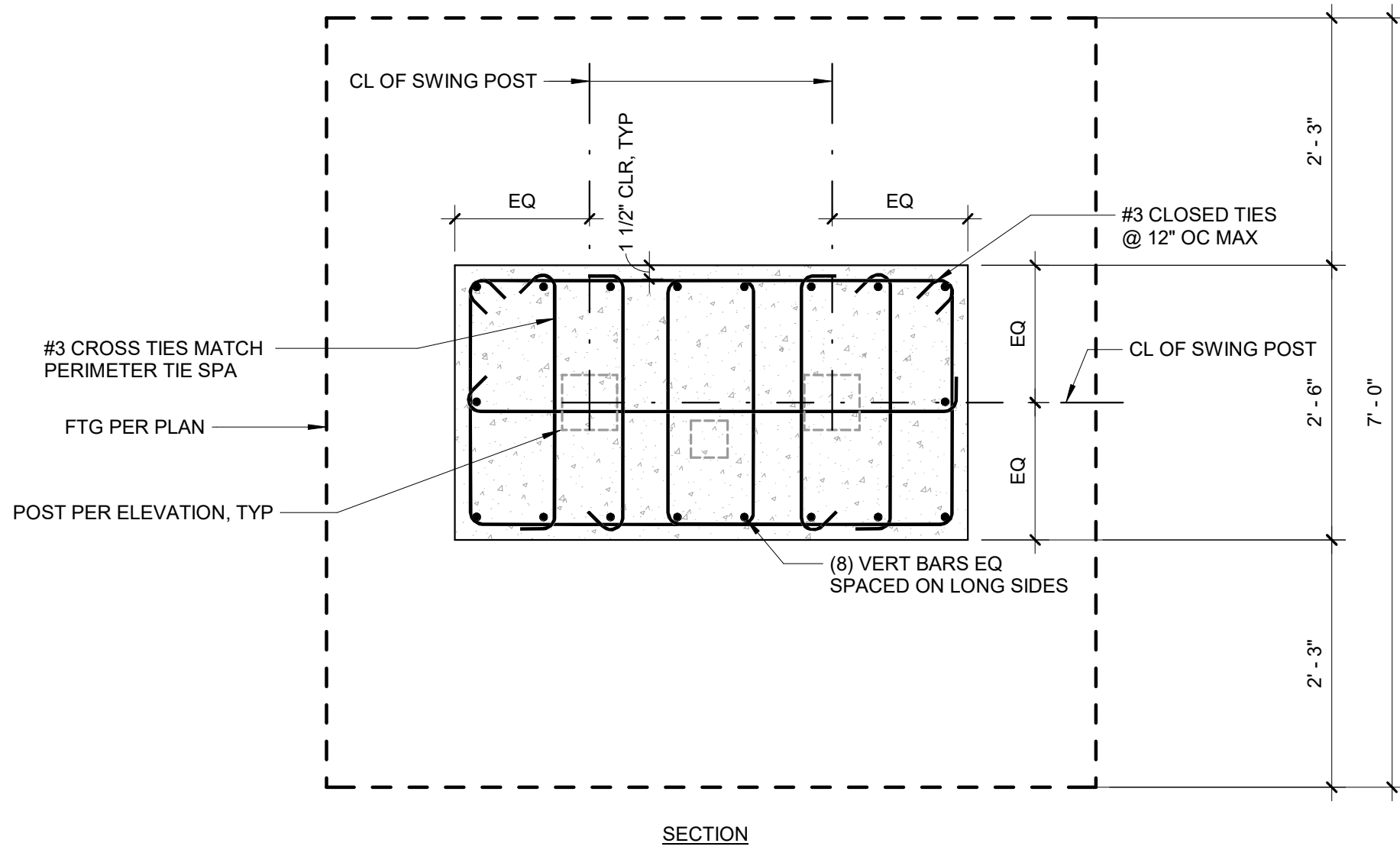




MARK	PIER DIA (MIN)	EMBED LENGTH (MIN)	PIER VERT BARS	REMARKS
P20A	20"	5'-6"	(6) #6	
P20B	20"	6'-9"	(6) #6	
P30A	30"	5'-9"	(6) #7	
P30B	30"	6'-6"	(6) #7	

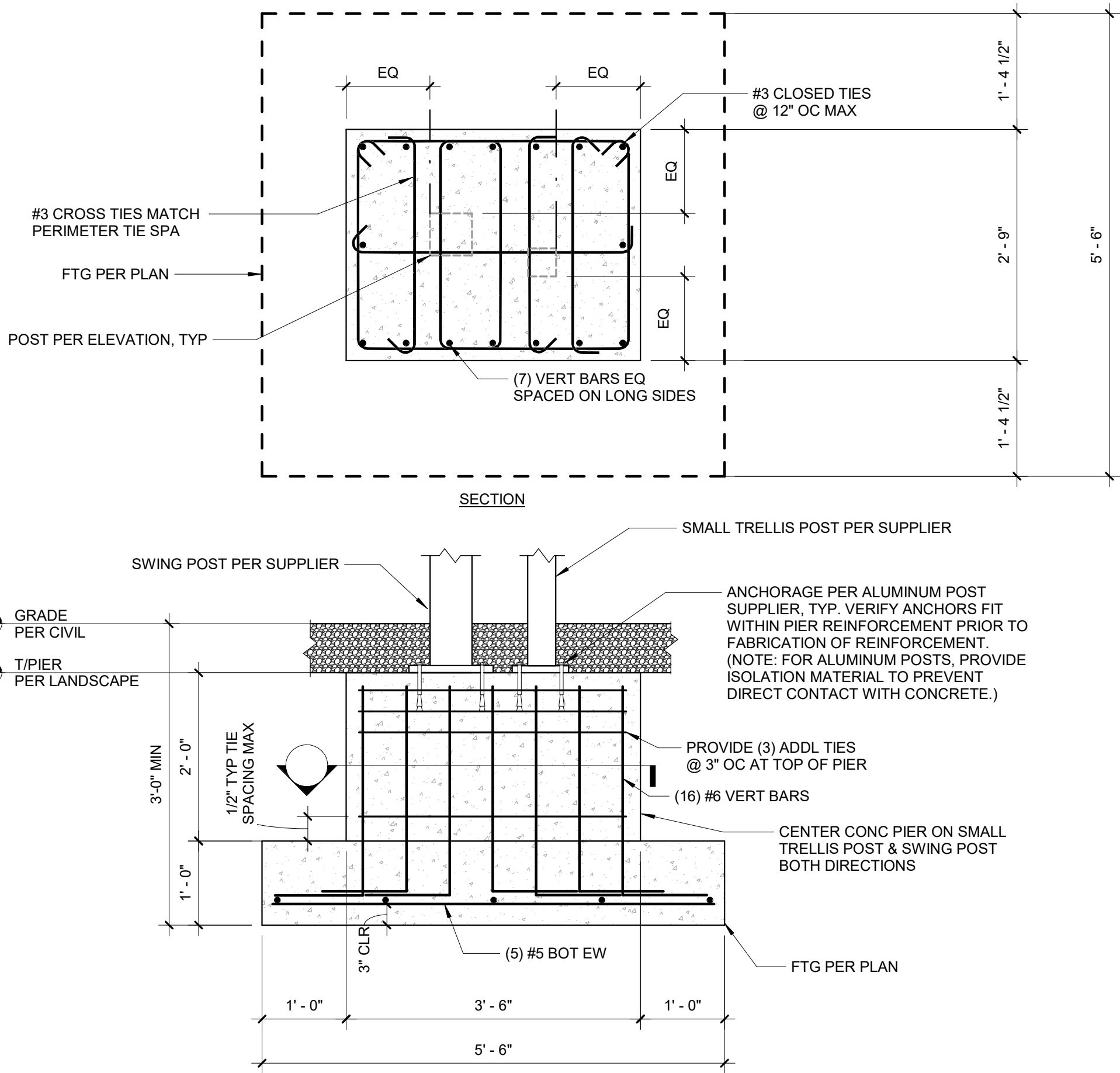
NOTES:

- ASSUMED SOIL LATERAL BEARING PRESSURE = 100 PSF/FT OF DEPTH BELOW NATURAL GRADE. PROJECT GEOTECHNICAL ENGINEER TO VERIFY SITE SOILS MEET THIS REQUIREMENT.
- EMBEDMENT DEPTH DEVELOPED BASED ON IBC 2012 SECTION 1807 FOR EMBEDDED POSTS AND POLES, NON-CONSTRAINED CONDITION, WITH MOVEMENT OF 1/2" PERMISSIBLE AT GROUND SURFACE DUE TO SHORT-TERM LATERAL LOADS.
- CONTACT ENGINEER FOR ANY CONDITIONS BEYOND THE LIMITS OF THIS DETAIL.



1 ALUMINUM POST FOUNDATION DETAIL  
70 N.T.S.

2 SECTION  
70 3/4" = 1'-0"



3 SECTION  
70 3/4" = 1'-0"

HORIZONTAL  
SCALE IN FEET



FOUNDATION SECTIONS AND  
DETAILS

DESIGN AGENCY



DESIGNER

LNN

REVIEWER

KCO

PROJECT ID

2024.02405

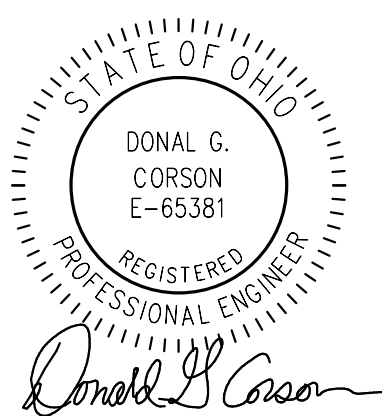
SUBSET TOTAL

SHEET

70

TOTAL

70



Donal G. Corson