

PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS

CITY OF CINCINNATI
HAMILTON COUNTY, OHIO



VICINITY MAP
NOT TO SCALE

PROJECT DESCRIPTION

THIS PROJECT INCLUDES THE REPLACEMENT OF APPROXIMATELY 350' OF SIDEWALK ALONG THE NORTH EDGE OF MCMILLAN STREET RUNNING WEST FROM THE INTERSECTION WITH KEMPER LANE. ASSOCIATED IMPROVEMENTS INCLUDE THE ADDITION AND/OR MODIFICATION OF SIGNAGE, STREET TREES, TRAFFIC SIGNALS, AND STREET LIGHTING.

2023 SPECIFICATIONS

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

NOTES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAS BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. THE CITY OF CINCINNATI DOES NOT GUARANTEE THE ACCURACY OF THE AFOREMENTIONED LOCATION AND ACCEPTS NO RESPONSIBILITY FOR ANY EXPENSE RESULTING FROM ERRORS OR OMISSIONS OF UTILITY LOCATIONS. CONTRACTOR(S) SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY WORK. NOTIFY PROJECT ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING WORK IN AFFECTED AREA.

INDEX OF SHEETS

TITLE SHEET	1
SCHEMATIC LAYOUT	2
TYPICAL SECTIONS	3
GENERAL NOTES	4-6
MAINTENANCE OF TRAFFIC	7
TYPICAL DETAILS	8-11
PLAN & PROFILE	12
WALK DETAILS	13-14
LIGHTING	15-17
TRAFFIC CONTROL PLAN	18
TRAFFIC SIGNAL PLANS	19-22

MCMILLAN STREET
POSTED SPEED: 25 MPH
DESIGN SPEED: 30 MPH

LEGEND

- LIGHT POLE
- UTILITY POLE
- GUY WIRE
- ELECTRIC MANHOLE
- ELECTRICAL BOX
- TRAFFIC SIGNAL POLE
- GAS VALVE
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- WATER MANHOLE
- TELEPHONE BOX
- TRAFFIC SIGNAL BOX
- SIGN (1 POST)
- SIGN (2 POST)
- TREE
- BUSH
- MAILBOX
- GUARD POST
- FENCE LINE
- WATERLINE
- UNDERGROUND GASLINE
- FIBER OPTIC
- OVERHEAD UTILITY
- UNDERGROUND ELECTRIC
- UNDERGROUND TELECOM
- SWALE
- FLOW ARROW
- CONSTRUCTION LIMITS

UNDERGROUND UTILITIES

Contact Two Working Days
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

STANDARD CONSTRUCTION DRAWINGS										SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	1/21/22	MT-095.31	7/19/19	TC-41.20	10/18/13	CIN. STD. DWG. ES-1-1	7/19/04	CIN. STD. DWG. ES-3-8	8/30/04	800	04/21/2023
BP-7.1	1/20/23	MT-101.90	7/17/20	TC-42.20	10/18/13	CIN. STD. DWG. ES-1-2	7/16/04	CIN. STD. DWG. ES-3-9	8/30/04	832	07/15/2022
		MT-105.10	1/17/20			CIN. STD. DWG. ES-2-1	8/29/07	CIN. STD. DWG. ES-6-2	2/1/91		
		MT-110.10	7/19/13	TC-52.10	10/18/13	CIN. STD. DWG. ES-2-2	8/28/07	CIN. STD. DWG. ES-7-3	9/15/04		
				TC-52.20	1/15/21	CIN. STD. DWG. ES-3-1	8/18/04	CIN. STD. DWG. ES-10-1	9/28/04		
				TC-71.10	4/21/23	CIN. STD. DWG. ES-3-2	8/13/04				
						CIN. STD. DWG. ES-3-3	12/10/10				
						CIN. STD. DWG. ES-3-4	8/18/04	CIN. STD. DWG. 120314	4/13/21		
						CIN. STD. DWG. ES-3-5	8/20/04	CIN. STD. DWG. 120361	12/11/08		
						CIN. STD. DWG. ES-3-6	8/24/04				
						CIN. STD. DWG. ES-3-7a	8/27/04	CINCINNATI ACC. 21435	2/1/91		
						CIN. STD. DWG. ES-3-7b	2/11/99	CINCINNATI ACC. 27256	1/7/03		
						CIN. STD. DWG. ES-3-7c	2/03/05				

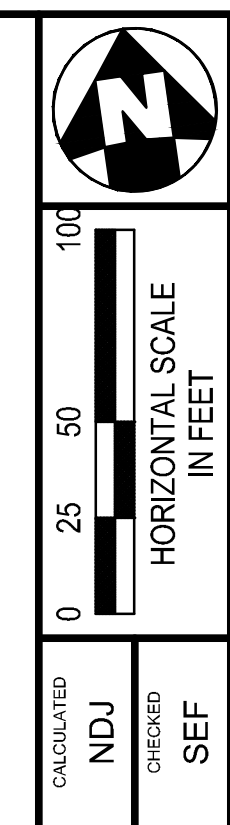
PLAN INSERT SHEETS

ENGINEER'S SEAL:

PLANS PREPARED BY:

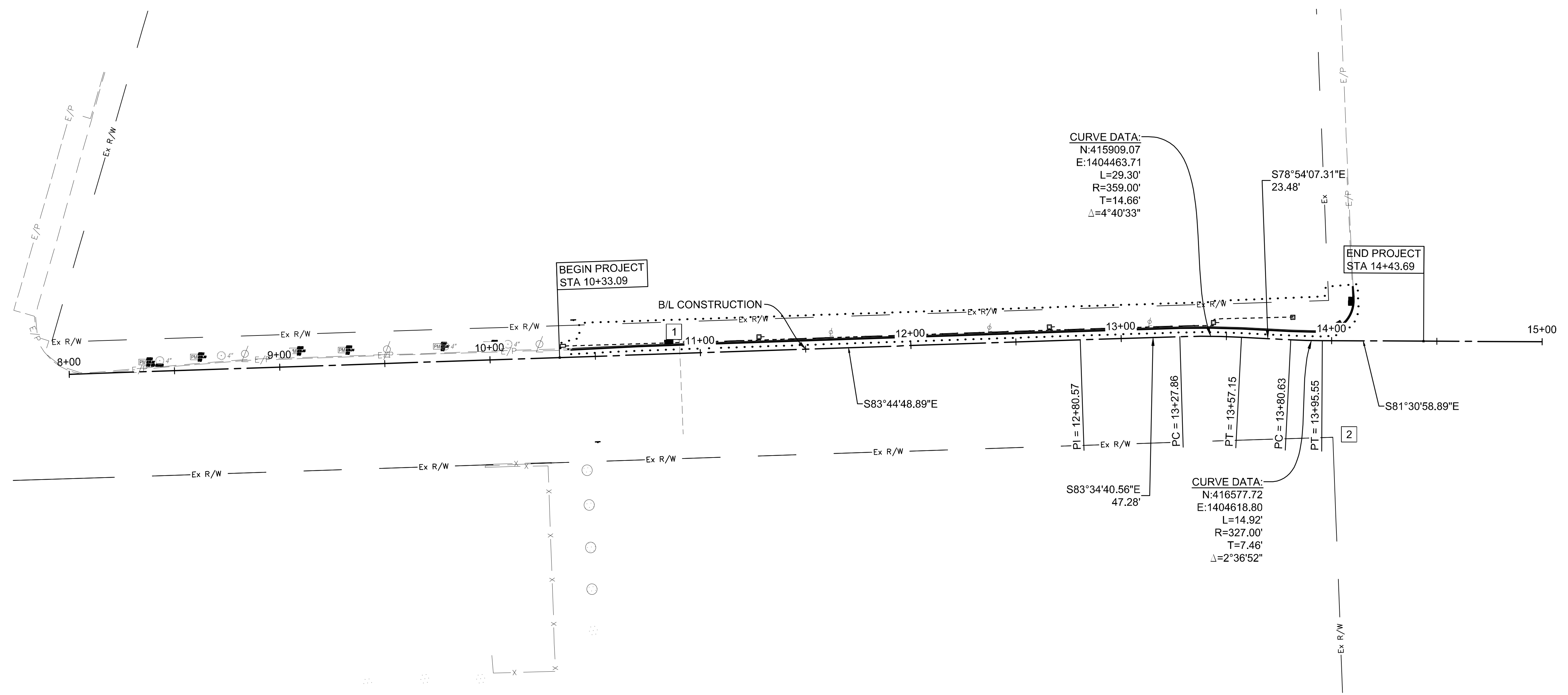


CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE
www.kleingers.com
6219 Centre Park Dr.
West Chester, OH 45380
513.778.7851



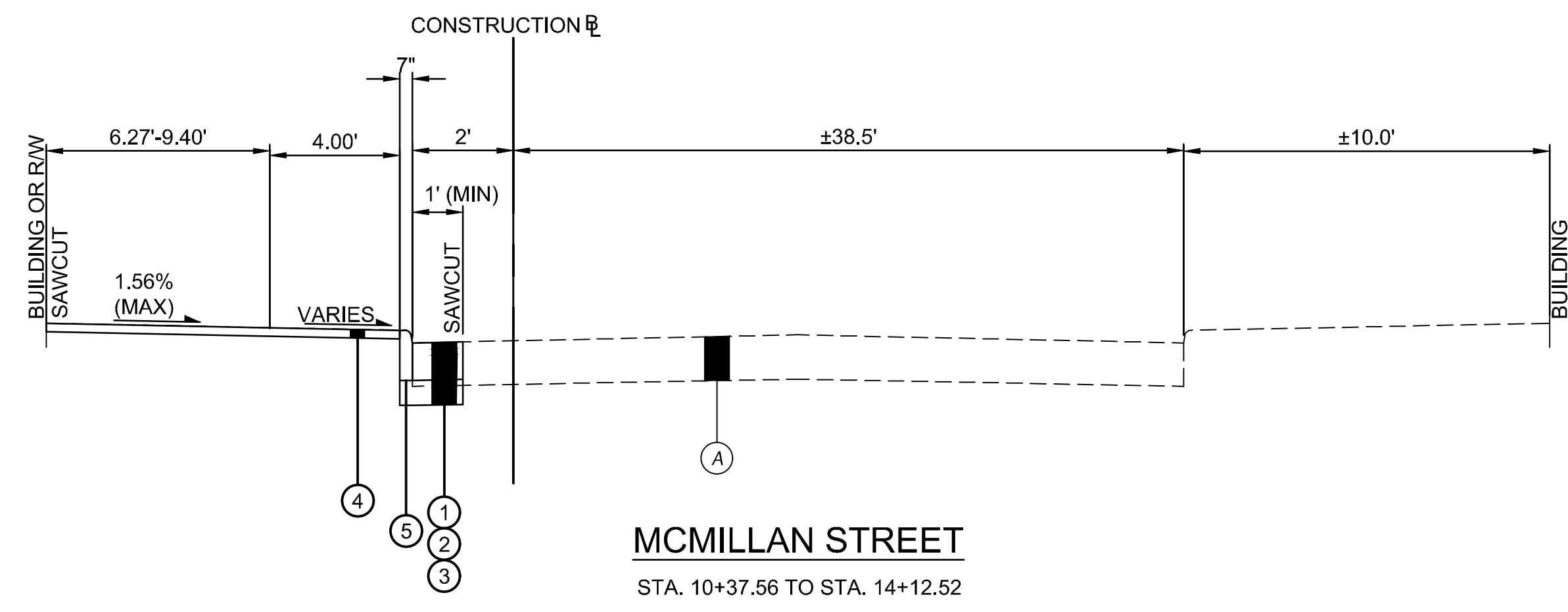
CALCULATED NDJ
CHECKED SEF

PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS
SCHEMATIC LAYOUT



MCMILLAN ST			
STATION	DESCRIPTION	NORTHING	EASTING
10+33.09	BEGIN PROJECT	416298.0620	1404210.8716
12+80.57	PI	416271.1064	1404456.8796
13+27.86	PC	416265.8175	1404503.8676
13+57.15	PT	416261.3568	1404532.8158
13+80.63	PC	416256.8378	1404555.8532
13+95.55	PT	416254.3008	1404570.5552
14+43.69	END PROJECT	416247.1989	1404618.1684

LAYOUT CONTROL					
POINT No.	DESCRIPTION	NORTHING	EASTING	STATION & OFFSET	ELEVATION
1	BENCHMARK	416302.4510	1404266.3400	10+87.75, 10.405'	832.90
2	CROSS NOTCH	416208.4700	1404576.8560	14+08.54, 44.400'	



- ① ITEM 301 9" ASPHALT CONCRETE BASE
- ② ITEM 304 6" AGGREGATE BASE
- ③ ITEM 204 SUBGRADE COMPACTION
- ④ ITEM 608 5" CONCRETE WALK, AS PER PLAN
- ⑤ ITEM 609 CURB, BATTERED TYPE S-1*
- (A) EXISTING ASPHALT PAVEMENT

NOTES:

SAWCUT TO SOUND PAVEMENT

- * CURB ALONG MCMILLAN SHALL BE GRANITE. CURB AT CROSSWALKS AND ALONG KEMPER SHALL BE CONCRETE. CONTRACTOR TO PICK UP GRANITE FROM CITY YARDS. CONTACT RYAN DEKORS 513-478-0671.

CALCULATED
NDJ
CHECKED
SEF

PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS
TYPICAL SECTIONS



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SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS

THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, 2023 CONSTRUCTION AND MATERIALS SPECIFICATIONS, AND THE NOTED STANDARD CONSTRUCTION DRAWINGS SHALL GOVERN THIS IMPROVEMENT.

WHEREVER THE WORD "STATE" OR DEPARTMENT OCCURS, IT IS TO MEAN THE CITY OF CINCINNATI OR THEIR REPRESENTATIVE. WHENEVER THE WORD "DIRECTOR" OR "ENGINEER" IS USED HEREIN, IT SHALL BE HELD TO MEAN THE CITY, OR DULY AUTHORIZED REPRESENTATIVE.

CONSTRUCTION LIMITS

THE CONTRACTOR SHALL RESTRICT ALL OF HIS ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE ACTUAL CONSTRUCTION LIMITS ARE SHOWN ON THE PLANS OR THE EXISTING OR PROPOSED R/W, WHICHEVER IS NEAREST. SHOULD THE CONTRACTOR WISH TO USE ANY AREA OUTSIDE THESE LIMITS, HE MUST SUBMIT HIS REQUEST IN WRITING TO THE ENGINEER. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA THAT THE CONTRACTOR PLANS TO USE AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. THE ENGINEER SHALL APPROVE THE REQUEST IN WRITING BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA. PRIOR TO THE BEGINNING OF WORK, THE CONTRACTOR, SUPERINTENDENT OR HIS REPRESENTATIVE, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY SHALL REVIEW AND RECORD ALL ADJACENT SITES WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF THE ADJACENT SITES WILL BE MADE. ANY AREAS DAMAGED BEYOND THE CONSTRUCTION LIMITS AS DEFINED ABOVE WILL BE REPAIRED OR REPLACED, AT THE CONTRACTOR'S EXPENSE, IN KIND OR AS DIRECTED BY THE ENGINEER.

CONSTRUCTION NOTIFICATION

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE CLOSURES, OR ROAD CLOSURES. THE CITY ENGINEER WILL FORWARD THIS INFORMATION TO THE CITY OFFICIAL RESPONSIBLE FOR PUBLIC NOTIFICATION. THIS OFFICIAL WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA MEDIA SOURCES.

EXISTING FACILITIES

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM HIS WORK IN SUCH A MANNER AS NOT TO DAMAGE OR DESTROY ANY EXISTING FACILITY. IF ANY SUCH DAMAGE DOES OCCUR DUE TO THE CONTRACTOR'S OPERATIONS, HE SHALL REPLACE THE DAMAGED PORTION AT HIS EXPENSE AND TO THE SATISFACTION OF THE ENGINEER.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN SEWER FLOWS AT ALL TIMES THROUGH EXISTING FACILITIES WHICH ARE TO REMAIN IN PLACE AND THROUGH EXISTING FACILITIES TO BE REPLACED UNTIL NEW FACILITIES ARE COMPLETED AND PLACED IN USE. ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED. ALL EXISTING SEWERS SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

MATERIALS AND WORKMANSHIP

UNLESS OTHERWISE SPECIFIED, ALL MATERIALS SHALL BE NEW AND BOTH WORKMANSHIP AND MATERIALS SHALL BE OF THE FIRST QUALITY, PROPER AND SUFFICIENT FOR THE PURPOSE CONTEMPLATED. THE CONTRACTOR SHALL FURNISH, IF SO REQUIRED, SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF MATERIALS AND WORKMANSHIP. ALL ITEMS OF EQUIPMENT AND/OR MATERIALS PROPOSED FOR SUBSTITUTION MUST BE APPROVED BY THE ENGINEER IN WRITING AND SHALL BE EQUAL OR BE SUPERIOR TO THE ITEMS SPECIFIED IN THE CONTRACT DOCUMENTS. IF SAID SUBSTITUTION PROPOSED BY THE CONTRACTOR FOR A SPECIFIED ITEM REQUIRED ENGINEERING REVISIONS, THE EXPENSE OF SUCH REVISIONS SHALL BE PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICE SHALL NOT BE OPERATED BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

PAVEMENT SAWING

ALL PAVEMENT SAWING IS INCIDENTAL TO PAVEMENT REMOVAL, CURB REMOVAL OR WALK REMOVAL AND SHALL SAWCUTTING WORK BE PAID UNDER THE ASSOCIATED REMOVAL ITEM.

PERMITS, FEES AND NOTICES

THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ANY AND ALL PERMITS AND INSPECTIONS REQUIRED FOR THE PROSECUTION OF THE WORK BY LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS.

PRE-CONSTRUCTION MEETING

FOLLOWING THE AWARD OF THE CONTRACT AND BEFORE STARTING ANY WORK, THE CONTRACTOR AND HIS SUPERINTENDENT, SHALL MEET WITH THE ENGINEER FOR A PRE-CONSTRUCTION MEETING. THE PURPOSE OF SUCH IS FOR REVIEWING THE SITE, AND ANY RESTRICTIONS AND REGULATIONS GOVERNING THE WORK.

ANY SCHEDULES, REQUESTS, PAPERS, APPROVALS, SUBMITTALS, SHOP DRAWINGS, CHANGES, ETC. AS CALLED FOR IN THE CONTRACT DOCUMENTS SHALL BE DONE AT THIS TIME UNLESS OTHERWISE DIRECTED.

WEATHER CONDITIONS

NO CONSTRUCTION SHALL BE DONE DURING STORMY, FREEZING, OR INCLEMENT WEATHER UNLESS PERMISSION IS GIVEN BY THE ENGINEER. WHENEVER WORK PROCEEDS DURING SUCH WEATHER, THE CONTRACTOR SHALL PROVIDE APPROVED FACILITIES, INCLUDING HEAT (IF REQUIRED), FOR THE PROTECTION OF ALL MATERIALS AND FINISHED WORK.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

COOPERATION WITH UTILITY COMPANIES

WHILE THE WORK OF THIS CONTRACT IS BEING PERFORMED, THE UTILITY COMPANIES MAY BE WORKING IN THE AREA ADJUSTING AND RESETTING EXISTING FACILITIES. THE CONTRACTOR SHALL FULLY COOPERATE WITH UTILITY COMPANIES SO THAT THE ENTIRE WORK IS COMPLETED IN A MANNER CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. THE CONTRACTOR, UTILITIES, AND ENGINEER SHALL DISCUSS THE NECESSARY CONSTRUCTION SCHEDULES TO COMPLETE THE PROJECT AT THE PRE-CONSTRUCTION MEETING.

ALL UTILITIES WHICH ARE SHOWN OR LOCATED DURING THE COURSE OF CONSTRUCTION THAT ARE FOUND TO BE IN CONFLICT WITH THESE PLANS ARE TO BE RELOCATED OR ADJUSTED BY THE OWNER OF THE UTILITY.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE AS OBTAINED FROM THE OWNERS OF THE UTILITIES AS REQUIRED BY SECTION 153.64 OF THE OHIO REVISED CODE.

THE UNDERGROUND UTILITIES SHOWN ON THE PLAN HAVE BEEN LOCATED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT; BUT THEIR ACCURACY OR COMPLETENESS IS NOT GUARANTEED.

UTILITIES NOTIFICATION

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN ON THE PLAN.

THE OWNER OF THE UNDERGROUND FACILITY SHALL, WITHIN 48 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS), MARK THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE AND THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.

PROTECTING EXISTING UNDERGROUND UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING, MARKING, OR OTHERWISE DESIGNATING THE LOCATIONS OF THE UNDERGROUND UTILITIES IN THE CONSTRUCTION AREAS IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH OF WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF PLANNED CONSTRUCTION. EXTREME CARE SHALL BE TAKEN IN THE VICINITY OF THE EXISTING UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ISOLATE, BRACE, SUPPORT, SHEET, ETC. AND PROTECT THE EXISTING UTILITY FROM MOVING EITHER HORIZONTALLY OR VERTICALLY. IF SUCH MOVEMENT DOES OCCUR DUE TO THE CONTRACTOR'S OPERATIONS, HE SHALL REPAIR THE UTILITY AT HIS EXPENSE. THE CONTRACTOR MAY ELECT TO REMOVE AND RECONSTRUCT PORTIONS OF THE EXISTING UTILITY AT HIS OWN EXPENSE IF HE SO DESIRES.

SHOULD AN UNLOCATED OR AN EXTREME VARIANCE IN LOCATION OF A UTILITY BE ENCOUNTERED DURING EXCAVATION, CONSULT THE ENGINEER IMMEDIATELY FOR DIRECTIONS.

DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED AND USED BY THE ENGINEER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE ENGINEER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICING HAS BEEN PROVIDED. COOPERATION WITH THE ENGINEER IN KEEPING RESPECTIVE SERVICES AND FACILITIES IN OPERATION IS ESSENTIAL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM HIS WORK IN SUCH A MANNER AS NOT TO DAMAGE OR DESTROY ANY EXISTING UTILITY. IF ANY SUCH DAMAGE DOES OCCUR DUE TO THE CONTRACTOR'S OPERATIONS, HE SHALL NOTIFY THE ENGINEER IMMEDIATELY AND REPLACE THE DAMAGED PORTION IMMEDIATELY, AND AT HIS EXPENSE.

UTILITY COORDINATION

THE FOLLOWING IS A LIST OF THE KNOWN EXISTING UTILITIES IN THE PROJECT AREA ALONG WITH THE RESPECTIVE OWNERS. THE LIST IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY OWNERS IN THE PROJECT AREA PRIOR TO START OF CONSTRUCTION WHETHER LISTED ON THIS PAGE OR NOT.

ELECTRIC

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ROBERT FRANKLIN
MSDUTILITYREVIEW@CINCINNATI-OH.GOV

WATER

GCWW
4747 SPRING GROVE AVENUE
CINCINNATI, OHIO 45232
MICHAEL COSSINS
MICHAEL.COSSINS@GCWW.CINCINNATI-OH.GOV

PROTECTION OF EXISTING TREES AND VEGETATION

THE CONTRACTOR SHALL PROTECT EXISTING TREES AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING AND BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS, OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY FENCES, BARRICADES OR GUARDS AS REQUIRED TO PROTECT TREES AND VEGETATION. THE CONTRACTOR SHALL WATER TREES AND OTHER VEGETATION WITHIN THE CONSTRUCTION AREA TO MAINTAIN THEIR HEALTH DURING THE COURSE OF CONSTRUCTION OPERATIONS. NO TREES SHALL BE REMOVED UNLESS APPROVED BY THE ENGINEER. PROVIDE PROTECTION FOR ROOTS OVER 1 1/2" DIAMETER THAT ARE CUT DURING CONSTRUCTION OPERATIONS. COAT AND CUT FACES WITH AN EMULSIFIED ASPHALT OR OTHER ACCEPTABLE COATING, ESPECIALLY FOR MUTILATED OR HORTICULTURE USE ON CUT OR DAMAGED PLANT TISSUES. TEMPORARILY COVER ALL EXPOSED ROOTS WITH WET BURLAP TO PREVENT ROOTS FROM DRYING OUT. PROVIDE EARTH COVER AS SOON AS POSSIBLE.

THE CONTRACTOR SHALL REPAIR OR REPLACE TREES AND VEGETATION WHICH ARE DAMAGED BY CONSTRUCTION OPERATIONS, IN A MANNER ACCEPTABLE TO THE ENGINEER. ALL TREES WHICH CANNOT BE REPAIRED AND RESTORED TO FULL-GROWTH STATUS, AS DETERMINED BY A TREE SURGEON, SHALL BE REPLACED.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE CONTRACTOR SHALL PERFORM THE NECESSARY PRECAUTIONS TO AVOID EXCESSIVE SOIL EROSION AND THE RUNOFF OF SEDIMENT INSIDE AND DOWNSTREAM OF THE PROJECT TO THE SATISFACTION OF THE ENGINEER. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO, ERECTION OF SILT FENCE (SF) ALONG THE PERIMETER OF THE CONSTRUCTION LIMITS AND PLACEMENT OF FILTER BARRIERS (FB) AS DITCH CHECKS. DITCH CHECKS SHALL BE PLACED AT A MAXIMUM SPACING OF 50 FEET ALONG ALL PROPOSED DITCHES. COST FOR SSB AND / OR FB DITCH CHECKS SHALL BE PAID FOR UNDER ITEM 207. FILTER FABRIC DITCH CHECK.

THE LOCATION AND TIMING OF ALL EROSION AND SEDIMENT CONTROL ITEMS SHALL BE FIELD ADJUSTED TO PREVENT SIGNIFICANT IMPACTS ON RECEIVING WATERS. IMPLEMENTATION OF THIS STORM WATER POLLUTION PREVENTION PLAN SHALL CONTINUE THROUGHOUT THE DURATION OF THE PROJECT OR UNTIL SUCH TIME THAT THE UPSLOPE DISTURBED AREAS ARE STABILIZED.

INSTALLATION OF SEDIMENT BASINS/DAMS, PERIMETER FILTER FABRIC FENCE, AND DITCH CHECKS SHALL BE CONCURRENT WITH THE CLEARING AND GRUBBING AND/OR GRADING OPERATIONS. ALL REASONABLE ATTEMPTS SHOULD BE MADE TO MINIMIZE THE TOTAL AREA OF DISTURBED LAND.

AREAS TO REMAIN DORMANT FOR MORE THAN 45 DAYS SHOULD BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING AND MULCHING, EROSION CONTROL MATTING OR OTHER APPROPRIATE EROSION CONTROL MEASURES. COST FOR TEMPORARY SEEDING AND MULCHING SHALL BE INCIDENTAL TO THE OVERALL CONTRACT.

EXAMINATION OF THE SITE

THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE OF THE PROPOSED WORK, THE PLANS AND SPECIFICATIONS. THE SUBMISSION OF A BID SHALL BE CONSIDERED EVIDENCE THAT THE CONTRACTOR HAS MADE SUCH EXAMINATION AND IS SATISFIED AS TO THE CONDITIONS TO BE ENCOUNTERED IN PERFORMING THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

DOWN TIME DUE TO FIELD CONFLICTS

DURING THE CONSTRUCTION ACTIVITIES OF THIS PROJECT, THERE MAY BE TIMES WHEN THE CONSTRUCTION IN SOME AREAS MAY NEED TO BE SUSPENDED PENDING FEED BACK ON, OR A RESOLUTION OF AN ISSUE WITH THE OWNER AND/ OR ENGINEER. THE CONTRACTOR, IN THIS CASE SHALL MOVE THE CREWS AND EQUIPMENT TO WORK IN A DIFFERENT AREA OR ON A DIFFERENT TASK. COST OF MOBILIZING AND DEMOBILIZING OF THE CONTRACTORS WORK CREWS AND EQUIPMENT INCLUDING ANY " DOWNTIME" SHALL BE INCIDENTAL TO THE OVERALL BID PRICE FOR THIS PROJECT.

RESTORATION

THE CONTRACTOR SHALL PROVIDE FOR PROTECTION OF THE FOLLOWING: EXISTING STREETS, DRIVEWAYS, SIDEWALKS, CURBS, GUTTERS, RE-SEEDING/RE-SODDING, REMOVAL OF TREES, RESTORATION OF AGRICULTURAL LAND, THE MAINTENANCE OF THE CONSTRUCTION AREA DURING PROGRESS OF THE WORK AND THE COMPLETE RESTORATION OF THE CONSTRUCTION AREA TO ITS ORIGINAL CONDITION AT THE COMPLETION OF THE WORK. THE CONTRACTOR SHALL CONTINUOUSLY CARRY ON WITH THE FINAL RESTORATION OF THE CONSTRUCTION AREA AFTER THE BACKFILLING IS COMPLETED, AND HE SHALL PROCEED TO RESTORE TO ITS ORIGINAL CONDITION ALL STREETS, DRIVEWAYS, SIDEWALKS, CURBS, GUTTERS, STRUCTURES, AND ALL AREAS THAT WERE DAMAGED, DISTURBED, OR OCCUPIED BY THE CONTRACTOR IN CONNECTION WITH ANY PHASE OF THE WORK.

PAVEMENTS, TREES, SHRUBS, FENCES, POLES, OR OTHER PROPERTY AND SURFACE STRUCTURES WHICH HAVE BEEN DAMAGED, REMOVED, OR DISTURBED BY THE CONTRACTOR, WHETHER DELIBERATELY OR THROUGH FAILURE TO CARRY OUT THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, STATE LAWS, MUNICIPAL ORDINANCES, THE SPECIFIC DIRECTION OF THE ENGINEER, OR THROUGH FAILURE TO EMPLOY USUAL AND REASONABLE SAFEGUARDS SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

ALL TEMPORARY SIGNS, SPRINKLER SYSTEMS, LANDSCAPING, ORNAMENTAL FENCING, ETC., LOCATED WITHIN THE PROJECT LIMITS MUST BE REPLACED OR RELOCATED UPON COMPLETION OF THE CONSTRUCTION.

SECURITY AND PROTECTION PROVISIONS

THE TYPES OF TEMPORARY SECURITY AND PROTECTION PROVISIONS REQUIRED INCLUDE, BUT NOT BY WAY OF LIMITATION, BARRICADES, WARNING SIGNS/LIGHTS, SITE ENCLOSURE FENCE, ETC. AND SIMILAR PROVISIONS INTENDED TO MINIMIZE PROPERTY LOSSES, PERSONAL INJURIES AND CLAIMS FOR DAMAGE TO THE PROJECT SITE. THE CONTRACTOR SHALL PROVIDE ANY PROTECTION SERVICES AND SYSTEMS IN COORDINATION WITH ACTIVITIES AND IN A MANNER TO ACHIEVE 24-HOUR, 7-DAY PER-WEEK EFFECTIVENESS.

TRENCHES THAT ARE OPEN SHALL NOT REMAIN UNPROTECTED AT ANY TIME. DURING NON-WORKING HOURS, TRENCHES SHALL BE CLOSED AND ANY EQUIPMENT ON THE SITE SHALL BE ADEQUATELY FENCED.

SHOP DRAWINGS

THE PROJECT SHALL MEET THE CONSTRUCTION AND MATERIAL SPECIFICATIONS AND DETAILS OUTLINED IN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW ONLY FOR DEVIATIONS FROM WHAT IS SPECIFIED ON THESE PLANS. SHOP DRAWINGS SUBMITTED TO THE ENGINEER FOR REVIEW UNDER THESE CONDITIONS SHALL CLEARLY IDENTIFY THE AREAS THAT DIFFER FROM THE STANDARDS CALLED OUT IN THE CONSTRUCTION DOCUMENTS AND/OR DETAILS.

ITEM 608 - 5" CONCRETE WALK, AS PER PLAN

CONTRACTOR TO INSTALL 5" CAST IN PLACE CONCRETE WALK WITH 3/8" DARK GRAY/BLUE GRANITE PEBBLE AGGREGATE WITH HAND TOOLED JOINTS AND GROUND FINISH. PROVIDE EQUAL SCORING JOINTS PER PLANS. COLOR, FINISH, AND LIMITS OF TREATMENT SHALL BE APPROVED OF BY THE ENGINEER PRIOR TO INSTALLATION. 5" CONCRETE WALK, CLASS QC1. SCORE PATTERN AS SHOWN ON DETAILS PLANS. FOR FINISHING, EDGE FIRST, THEN BROOM FINISH. LEAVE NO RIBBONS.

ITEM 608 - CURB RAMP

PERFORM WORK IN ACCORDANCE WITH THE LATEST VERSION OF THE CITY OF CINCINNATI CURB RAMP DESIGN GUIDE, WHICH INCLUDES THE CURB RAMP STANDARD DRAWINGS, ACCESSION NO. 27256 UNLESS NOTED OTHERWISE.

REFER TO THE DRAWINGS AND SPECIFICATIONS FOR MATERIAL INFORMATION ON EACH CURB RAMP, WHETHER CLAY PAVER SIDEWALKS OR CONCRETE.

ITEM 608 - DETECTABLE WARNING TYPE B, AS PER PLAN

THIS ITEM INCLUDES ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY FOR THE PLACEMENT OF DETECTABLE WARNING DEVICE TYPE "B" - RED ADA CLAY PAVER BY BELDEN BRICK, WITH TRUNCATED DOMES, BEVELED TOP EDGES AND SIDE SPACING LUGS IN A BASKET WEAVE PATTERN. TYPICAL OVERALL SIZE IS 2'x4' BUT OTHER SIZES AND SHAPES MAY BE REQUIRED AND WILL REQUIRE CLEAN EDGED FIELD CUTS TO FIT.

USE ONLY CLEAN COMPACTED MASONRY SAND FOR THE 1" PAVER SETTING BED AND THE PAVER JOINTS SPECIFIED FOR PEDESTRIAN TRAFFIC AREAS IN COMPLIANCE WITH ASTM C 144.

ITEM 608 - 5" PERVIOUS CONCRETE WALK, AS PER PLAN

THIS WORK CONSISTS OF PROVIDING ALL EQUIPMENT, LABOR AND MATERIAL NECESSARY TO INSTALL NEW 5" PERVIOUS CONCRETE WALK SECTION AT TREE WELL LOCATIONS AS NOTED ON PLANS AND DETAIL SHEETS. THIS ITEM INCLUDES INSTALLING A LENGTH OF 4" PVC SCH 40 TO DRAIN STORM WATER FROM THE PERVIOUS AREA INTO THE TREE WELL AS SHOWN IN PLAN DETAIL. THIS ITEM ALSO INCLUDES THE INSTALLATION OF 7" THICK SUB-BASE OF #57 WASHED GRAVEL AS SHOWN IN PLANS.

INSTALL PERVIOUS CONCRETE PER INDUSTRY STANDARDS AND IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE AND THE AMERICAN SOCIETY FOR TESTING AND MATERIALS. THE GENERAL CONTRACTOR (OR HIS SUB-CONTRACTOR PERFORMING THE WORK) SHALL DEMONSTRATE TO HAVE SUFFICIENT EXPERIENCE WITH PERVIOUS CONCRETE PAVEMENT (AT LEAST TWO SUCCESSFUL PROJECTS) INSTALLATIONS AND HAVE AT LEAST ONE CREW MEMBER CERTIFIED BY THE NRMCA PERVIOUS CONCRETE CONTRACTOR CERTIFICATION PROGRAM.

A TEST AREA SHOULD BE CONSTRUCTED IN PLACE AT ONE TREE WELL LOCATION FOR APPROVAL BY ARCHITECT/ENGINEER PRIOR COMPLETION IN ALL AREAS. THE ARCHITECT/ENGINEER MAY WAIVE THIS REQUIREMENT BASED ON THE CONTRACTOR'S QUALIFICATIONS IN THIS AREA. IF THE TEST AREA IS FOUND TO BE SATISFACTORY, IT MAY BE LEFT IN PLACE AND INCLUDED IN THE COMPLETED WORK AT NO ADDITIONAL COST TO THE PROJECT.

THE CONTRACTOR SHALL NOT PLACE PERVIOUS CONCRETE FOR PAVEMENT WHEN THE AMBIENT TEMPERATURE IS 40 DEGREES F OR LOWER AND 90 DEGREES F OR HIGHER.

PROVIDE AND INSTALL ISOLATION (EXPANSION) JOINT MATERIAL AT PERIMETER OF PERVIOUS CONCRETE SHALL BE GRAY IN COLOR, 1/4 INCH OR 1/2 INCH PROFLEX VINYL (ISOLATION) EXPANSION JOINT BY OSCODA PLASTICS, OR EQUAL, IN COMPLIANCE WITH ASTM D 1751 OR ASTM D 1752. ISOLATION JOINTS SHALL ALSO BE USED WHEN ABUTTING FIXED VERTICAL STRUCTURES SUCH AS LIGHT POLE BASES, OR POLES.

INSTALL FILTER FABRIC BETWEEN AGGREGATE MATERIAL AND SUBGRADE PER ITEM 712.09 TYPE "D" GEOTEXTILE FILTER FABRIC.

PERVIOUS CONCRETE PAVEMENT:

1. CEMENT: PORTLAND CEMENT TYPE I, TYPE II OR V CONFORMING TO ASTM C 150 OR PORTLAND CEMENT TYPE IP OR IS CONFORMING TO ASTM C 595.

2. SUPPLEMENTARY CEMENTITIOUS MATERIALS:
A. FLY ASH CONFORMING TO ASTM C 618
B. GROUND GRANULATED BLAST-FURNACE SLAG CONFORMING TO ASTM C 989

3. ADMIXTURES:
A. AIR ENTRAINING ADMIXTURES WITH ASTM C 260.
B. CHEMICAL ADMIXTURES SHALL COMPLY WITH ASTM C 494.
1. MID-RANGE WATER REDUCING ADMIXTURES (WATER REDUCERS) TYPE A OR HIGH RANGE WATER REDUCING ADMIXTURES TYPE F OR G ARE PERMITTED DUE TO LOW WATER-CEMENTITIOUS RATIOS SPECIFIED FOR PERVIOUS CONCRETE.
2. EXTENDED SET CONTROL ADMIXTURES (HYDRATION STABILIZERS) MEETING REQUIREMENTS OF ASTM C 494 TYPE B RETARDING OR TYPE D WATER REDUCING/RETARDING ADMIXTURES ARE PERMITTED TO BE USED WHEN IT IS NECESSARY TO INCREASE CONCRETE PLACEMENT TIME TO 90 MINUTES OR TO IMPROVE FINISHING OPERATIONS. THIS STABILIZER SUSPENDS CEMENT HYDRATION BY FORMING A PROTECTIVE BARRIER AROUND THE CEMENTITIOUS PARTICLES, WHICH DELAYS THE PARTICLES INITIAL SET. IF THIS MIX HEATS UP IN THE TRUCK A STANDARD RETARDER WILL NOT PREVENT PREMATURE HYDRATION WHERE THE STABILIZER WILL.
3. VISCOSITY MODIFYING ADMIXTURES (VMA'S) ARE PERMITTED TO FACILITATE DISCHARGE OF THE CONCRETE FROM THE TRUCK AND PLACEMENT IN THE FORMS.

4. AGGREGATES FOR PERVIOUS CONCRETE:
A. COARSE AGGREGATE SHALL MEET THE SIZE AND GRADING REQUIREMENTS AS DEFINED IN ASTM D 448 (OR STANDARD SIZES OF COARSE AGGREGATE, TABLE 4, AASHTO SPECIFICATIONS, PART I, 13TH/ED., 1982 OR LATER) AND SHALL COMPLY WITH ASTM C 33 AND ODOT ITEM 703.02. USE NO.67, NO. 7, NO. 8, NO. 89 OR NO. 9 UNLESS AN ALTERNATE SIZE IS APPROVED FOR USE BASED ON MEETING THE PROJECT REQUIREMENTS. DATA FOR PROPOSED ALTERNATE MATERIAL SHALL BE SUBMITTED FOR APPROVAL PER SECTION 1.05A OF THIS GUIDE. FINE AGGREGATE COMPLYING WITH ASTM C33, IF USED, SHALL NOT EXCEED 3 FT3/ PER YD3 ((0.11 M3/ PER 1.0 M3)).
B. LARGER AGGREGATE SIZES MAY INCREASE POROSITY BUT CAN DECREASE WORKABILITY. WELL GRADED AGGREGATES SHALL BE AVOIDED AS THEY MAY REDUCE POROSITY, AND MAY NOT PROVIDE ADEQUATE VOID CONTENT.
C. WHERE AVAILABLE, NATURAL ROUNDED AGGREGATES ARE RECOMMENDED.

WATER: WATER SHALL BE POTABLE AND COMPLY WITH ASTM C 1602.

5. MIXTURE PROPORTIONS: THE CONTRACTOR SHALL FURNISH A PROPOSED MIX DESIGN WITH PROPORTIONS OF MATERIALS PRIOR TO COMMENCEMENT OF WORK. THE DATA SHALL INCLUDE UNIT WEIGHTS DETERMINED IN ACCORDANCE WITH ASTM C 29 PARAGRAPH 11, JIGGING PROCEDURE. THE COMPOSITION OF THE PROPOSED CONCRETE MIXTURE SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND/OR APPROVAL AND SHALL COMPLY WITH THE FOLLOWING PROVISIONS UNLESS AN ALTERNATIVE COMPOSITION IS DEMONSTRATED TO COMPLY WITH THE PROJECT REQUIREMENTS. MIXTURE PERFORMANCE WILL BE AFFECTED BY PROPERTIES OF THE PARTICULAR MATERIALS USED. TRIAL MIXTURES MUST BE TESTED TO ESTABLISH PROPER PROPORTIONS AND DETERMINE EXPECTED BEHAVIOR. CONCRETE PRODUCERS MAY HAVE MIXTURE PROPORTIONS FOR PERVIOUS CONCRETE OPTIMIZED FOR PERFORMANCE WITH LOCAL MATERIALS. APPENDIX 6 OF ACI 211.3R PROVIDES A GUIDE FOR PERVIOUS CONCRETE MIXTURE PROPORTIONING. PROPORTIONS:
A. AGGREGATE/CEMENTITIOUS RATIO: RANGE OF 4:1 TO 5:1.
B. CONCRETE MIXTURE UNIT WEIGHT: RANGE OF 105 LB/FT3/ TO 130 LB/FT3/ (1680 KG/M3/ TO 2080 KG/M3) PER ASTM C 29, PARAGRAPH 11, JIGGING PROCEDURE.
C. CONCRETE MIXTURE VOID CONTENT: RANGE OF 15 % TO 25%, PER ASTM C 138, GRAVIMETRIC AIR DETERMINATION.
D. CEMENTITIOUS CONTENT: RANGE OF 500 LBS/YD3/ TO 600 LB/YD3 ((297 KG/M3/ TO 356 KG/M3)), TOTAL CEMENTITIOUS CONTENT.
E. SUPPLEMENTARY CEMENTITIOUS CONTENT: FLY ASH: 25 % MAXIMUM; SLAG: 25 % MAXIMUM, OR COMBINED SUPPLEMENTARY CEMENTITIOUS CONTENT: 35 % MAXIMUM.
F. WATER - CEMENTITIOUS RATIO: RANGE FROM 0.27 TO 0.35.
G. AGGREGATE CONTENT: THE BULK VOLUME OF AGGREGATE PER CUBIC YARD (CUBIC METER) SHALL BE EQUAL TO 27 FT3/ (1 M3) WHEN CALCULATED FROM THE DRY RODDED DENSITY (UNIT WEIGHT) DETERMINED IN ACCORDANCE WITH ASTM C29 JIGGING PROCEDURE.
H. ADMIXTURES: ADMIXTURES SHALL BE USED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. DOSAGE OF AIR-ENTRAINING ADMIXTURE SHALL BE A MINIMUM OF 2 OZ./CWT (130 ML/100KG) OF CEMENTITIOUS MATERIAL.
I. MIX WATER: THE QUANTITY OF MIXING WATER SHALL BE ESTABLISHED TO PRODUCE A PERVIOUS CONCRETE MIXTURE OF THE DESIRABLE WORKABILITY TO FACILITATE PLACING, COMPACTION AND FINISHING TO THE DESIRED SURFACE CHARACTERISTICS. MIX WATER SHALL BE SUCH THAT THE CEMENT PASTE DISPLAYS A WET METALLIC SHEEN WITHOUT CAUSING THE PASTE TO FLOW FROM THE AGGREGATE. (A CEMENT PASTE WITH A DULL-DRY APPEARANCE HAS INSUFFICIENT MIX WATER FOR HYDRATION.) INSUFFICIENT MIX WATER RESULTS IN INCONSISTENCY IN THE MIX AND POOR BOND STRENGTH. HIGH WATER CONTENT RESULTS IN THE PASTE SEALING THE VOID SYSTEM PRIMARILY AT THE BOTTOM AND POOR SURFACE BOND.

INSTALLATION

1. PRIOR TO PLACING CONCRETE, THE SUBBASE SHALL BE SOAKED AND IN A WET CONDITION AT TIME OF PLACEMENT. FAILURE TO PROVIDE A MOIST SUBBASE WILL RESULT IN A REDUCTION IN STRENGTH OF THE PAVEMENT.
2. CONCRETE MAY BE DEPOSITED INTO THE FORMS BY MIXER TRUCK CHUTE, CONVEYOR OR BUGGY.
3. UNLESS OTHERWISE PERMITTED, THE CONTRACTOR SHALL UTILIZE A MECHANICAL VIBRATORY SCREED TO STRIKE OFF THE CONCRETE 1/2 IN. TO 3/4 IN. (13 MM TO 19 MM) ABOVE FINAL HEIGHT, UTILIZING THE FORM SPACERS DESCRIBED IN FORMWORK. AN ALTERNATIVE METHOD TO STRIKE OFF AND COMPACT THE CONCRETE IS TO USE A HYDRAULICALLY ACTUATED PIPE ROLLER SCREED AS DESCRIBED UNDER 1.04 SPECIAL EQUIPMENT. IF APPROVED BY THE ARCHITECT/ENGINEER IN WRITING, THE CONTRACTOR MAY PLACE THE PERVIOUS CONCRETE WITH EITHER SLIP FORM OR VIBRATORY FORM RIDING EQUIPMENT WITH A FOLLOWING COMPACTIVE UNIT THAT WILL PROVIDE A MINIMUM OF 10 PSI (69 KPA) VERTICAL FORCE TO THE CONCRETE.
4. CARE MUST BE TAKEN TO PREVENT CLOSING THE VOID STRUCTURE OF PERVIOUS CONCRETE. AFTER MECHANICAL OR OTHER APPROVED STRIKE-OFF AND COMPACTION OPERATION, NO OTHER FINISHING OPERATION WILL BE ALLOWED. INTERNAL VIBRATION SHALL NOT BE PERMITTED. IF VIBRATION, INTERNAL OR SURFACE APPLIED, IS USED, IT SHALL BE SHUT OFF IMMEDIATELY WHEN FORWARD PROGRESS IS HALTED FOR ANY REASON.
5. PLACED CONCRETE SHALL NOT BE DISTURBED WHILE IN THE PLASTIC STATE. LOW SPOTS AFTER THE SCREEDING OPERATION SHALL BE OVER-FILLED FOR SURFACE REPAIR AND TAMPED TO DESIRED ELEVATION WITH HAND TAMPERS.
6. FOLLOWING STRIKE-OFF, REMOVE SPACERS AND COMPACT THE CONCRETE TO THE FORM LEVEL, UTILIZING A STEEL ROLLER, A PLATE COMPACTOR ON PLYWOOD OR OTHER METHOD APPROVED BY THE ARCHITECT/ENGINEER. LONGITUDINAL ROLLING SHALL BE FOLLOWED IMMEDIATELY BY CROSS ROLLING AND JOINT ROLLING (IF SPECIFIED). CARE SHALL BE TAKEN DURING COMPACTION THAT SUFFICIENT COMPACTIVE FORCE IS ACHIEVED WITHOUT EXCESSIVELY WORKING THE CONCRETE SURFACE THAT MIGHT RESULT IN SEALING OFF THE SURFACE POROSITY.
7. HAND TAMPERS AND AN EDGING TOOL WITH 1/4 IN. (6 MM) RADIUS SHALL BE USED TO COMPACT THE CONCRETE ALONG THE SLAB EDGES IMMEDIATELY ADJACENT TO THE FORMS. AFTER COMPACTION, INSPECTION AND SURFACE REPAIR, NO FURTHER FINISHING SHALL BE PERFORMED ON THE CONCRETE. SURFACE CURING SHALL BEGIN IMMEDIATELY.
8. THE PERVIOUS CONCRETE PAVEMENT SHALL BE COMPACTED TO THE REQUIRED CROSS-SECTION AND SHALL NOT DEVIATE MORE THAN +/- 3/8 IN. IN 10 FT (+/- 9 MM IN 3 M) FROM PROFILE GRADE.

CURING AND QUALITY CONTROL

1. CURING PROCEDURES SHALL BEGIN IMMEDIATELY, NO LATER THAN 20 MINUTES, FROM THE TIME THE PERVIOUS CONCRETE IS DISCHARGED FROM THE TRUCK. PLACING, FINISHING AND TOOLED JOINTING AND EDGING MUST BE COMPLETED WITHIN THE 20-MINUTE WINDOW FROM DISCHARGE. THE PAVEMENT SURFACE SHALL BE COVERED WITH A MINIMUM OF 6 MIL THICK POLYETHYLENE SHEET OR OTHER APPROVED COVERING MATERIAL. PRIOR TO COVERING, AN EVAPORATIVE REDUCER SHALL BE SPRAYED ABOVE THE SURFACE WHEN REQUIRED DUE TO AMBIENT CONDITIONS (HIGH TEMPERATURE, HIGH WIND, AND LOW HUMIDITY). THE COVER SHALL OVERLAP ALL EXPOSED EDGES AND SHALL BE SECURED (WITHOUT USING DIRT OR STONE) TO PREVENT DISLOCATION DUE TO WINDS OR ADJACENT TRAFFIC CONDITIONS. FOR ADDITIONAL GUIDANCE ON HOT WEATHER CONCRETING, SEE ACI 305, AND FOR COLD WEATHER CONCRETING SEE ACI 306.
2. THE LOW WATER/CEMENTITIOUS RATIO AND HIGH AMOUNT OF EXPOSED SURFACE OF PERVIOUS CONCRETE MAKES IT ESPECIALLY SUSCEPTIBLE TO DRYING OUT. IMMEDIATELY AFTER SCREEDING, THE SURFACE SHALL BE KEPT MOIST AND EVAPORATION PREVENTED USING A SPRAY APPLIED CURING COMPOUND AND/OR EVAPORATION RETARDER IMMEDIATELY AFTER SCREEDING. IMMEDIATELY AFTER EACH TRANSVERSE JOINTING THE POLYETHYLENE SHEET CURING SHALL BE APPLIED THEN CROSS ROLLING SHALL BE PERFORMED.
3. THE CURING COVER SHALL REMAIN SECURELY IN PLACE FOR A MINIMUM OF 7 DAYS, UNINTERRUPTED. NO VEHICULAR TRAFFIC SHALL BE PERMITTED ON THE PAVEMENT UNTIL CURING IS COMPLETE (7 DAYS) AND NO TRUCK TRAFFIC SHALL BE PERMITTED FOR AT LEAST 14 DAYS. PEDESTRIAN TRAFFIC MAY BE PERMITTED ON THE CURING CONCRETE AFTER 24 HOURS. THE ARCHITECT/ENGINEER MAY PERMIT EARLIER TRAFFIC OPENING TIMES.
4. THE CONTRACTOR IS RESPONSIBLE FOR MANAGEMENT OF THE PUBLIC RIGHT OF WAY DURING THE CURING PROCESS.
5. THE ARCHITECT/ENGINEER SHALL EMPLOY A TESTING LABORATORY THAT CONFORMS TO THE REQUIREMENTS OF ASTM E329 AND ASTM C1077. ALL PERSONNEL ENGAGED IN CONCRETE TESTING SHALL BE CERTIFIED BY THE AMERICAN CONCRETE INSTITUTE AS ACI CONCRETE FIELD TECHNICIANS OR EQUIVALENT.
6. TRADITIONAL CONCRETE TESTING PROCEDURES FOR STRENGTH AND SLUMP CONTROL ARE NOT APPLICABLE TO THIS TYPE OF PAVEMENT MATERIAL. PROCEDURES TO BE USED PER THIS GUIDE SPECIFICATION INCLUDE: ASTM C 172, ASTM C 29, ASTM C 42 AND ASTM C 138.
7. CONCRETE TESTS SHALL BE PERFORMED FOR EACH 150 YD3/ (115 M3) OR FRACTION THEREOF WITH A MINIMUM OF ONE SET OF TESTS FOR EACH DAY'S PLACEMENT.
8. SAMPLING - PLASTIC CONCRETE SHALL BE SAMPLED IN ACCORDANCE WITH ASTM C 172.
9. UNIT WEIGHT (DENSITY) - UNIT WEIGHT SHALL BE MEASURED IN ACCORDANCE WITH ASTM C 29. THE MEASURE IS TO BE FILLED AND COMPACTED IN ACCORDANCE WITH ASTM C 29 PARAGRAPH 11, JIGGING PROCEDURE. THE UNIT WEIGHT OF THE DELIVERED CONCRETE SHALL BE +/- 5 LB/FT3/ (80 KG/M3) OF THE DESIGN UNIT WEIGHT (DENSITY).
10. VOID CONTENT - VOID CONTENT OF THE PLASTIC CONCRETE SHALL BE CALCULATED AS PER ASTM C138 (GRAVIMETRIC AIR DETERMINATION), AND COMPARED TO THE VOID PERCENTAGE REQUIRED BY THE HYDRAULIC DESIGN. UNLESS OTHERWISE SPECIFIED, VOID CONTENT SHALL BE BETWEEN 15% AND 25%.
11. AFTER A MINIMUM OF SEVEN (7) DAYS, HARDENED CONCRETE SHALL BE TESTED AT A RATE OF ONE SET OF THREE CORES PER 150 YD3/ (115 M3) OF CONCRETE PLACED ON ONE DAY OR FRACTION THEREOF. CORES SHALL BE DRILLED IN ACCORDANCE WITH ASTM C 42. THE CORES SHALL BE MEASURED FOR THICKNESS, VOID STRUCTURE AND UNIT WEIGHT.
12. THICKNESS - UNTRIMMED HARDENED CORE SAMPLES SHALL BE USED TO DETERMINE PLACEMENT THICKNESS. THE AVERAGE OF ALL PRODUCTION CORES WHEN MEASURED FOR LENGTH SHALL NOT BE MORE THAN 1/2 IN. (13 MM) LESS THAN THE SPECIFIED DESIGN THICKNESS.
13. CORE UNIT WEIGHT (DENSITY) AND VOID CONTENT - THE CORES SHALL BE TESTED FOR UNIT WEIGHT (DENSITY) AND VOID CONTENT USING ASTM C 140. UNIT WEIGHT (DENSITY) OF CORES TRIMMED AND TESTED IN THE SATURATED CONDITION, PER ASTM C 140, PARAGRAPH 6.3.1. SHALL BE +/- 5 LB/FT3/ (80 KG/M3) OF THE DESIGN UNIT WEIGHT. VOID CONTENT SHALL BE NOT BE LOWER THAN 2% BELOW THE SPECIFIED DESIGN VOID CONTENT. VOID CONTENT SHALL CALCULATED AS FOLLOWS:
% VOIDS = 1 - (DD/DI) * 100
WHERE: DD = OVEN DRIED DENSITY OF CORE
DI = IMMERSERED DENSITY OF CORE
14. EXCESSIVE RAVELING - AT OR BEFORE 28 DAYS AFTER PLACEMENT, ANY AREAS OF EXCESSIVE SURFACE RAVELING, AS DETERMINED BY THE ARCHITECT/ENGINEER, SHALL BE REMOVED AND REPLACED OR REPAIRED BY THE CONTRACTOR, (OPTIONAL LANGUAGE - A) AT THE UNIT PRICE ESTABLISHED IN THE CONTRACT; (OR B) AT NO ADDITIONAL COST TO THE PROJECT).
15. SURFACE DRAINAGE - AT OR BEFORE 28 DAYS AFTER PLACEMENT, ANY AREAS OF INSUFFICIENT SURFACE POROSITY, AS DETERMINED BY THE ARCHITECT/ENGINEER, SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR, (OPTIONAL LANGUAGE - A) AT THE UNIT PRICE ESTABLISHED IN THE CONTRACT; (OR B) AT NO ADDITIONAL COST TO THE PROJECT).

MAINTENANCE

1. THE GENERAL CONTRACTOR SHALL VACUUM OR POWER WASH THE PERVIOUS CONCRETE AFTER SUBSTANTIAL COMPLETION OF THE PROJECT TO CLEAN OUT CONSTRUCTION SEDIMENT IN THE VOIDS AND TO RESTORE POROSITY ABOVE 80%. THIS WORK IS INCIDENTAL TO THE UNIT COST FOR THIS ITEM.

PAYMENT FOR THE INSTALLATION OF THIS ITEM SHALL - PERVIOUS CONCRETE - INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK IN THE BID PRICE PER SQUARE FEET FOR ITEM 608 - 5" PERVIOUS CONCRETE WALK.

ITEM 609 - CONCRETE CURB, TYPE L-1 - CURB RAMP
UPON COMPLETION OF THE SURFACE COURSE PAVEMENT, THE MAXIMUM ALLOWABLE VERTICAL OFFSET WHERE THE CURB RAMP MEETS THE NEW PAVEMENT IS 1/4 INCH. REMOVE AND REPLACE CURB RAMPS EXCEEDING THE 1/4 INCH MAXIMUM OFFSET AT THE CONTRACTOR'S EXPENSE.

DO NOT PLACE TACK ALONG THE CURB/PAVEMENT INTERFACE WITHIN THE LIMITS OF THE CURB RAMP.

ALL EXCAVATIONS AND SAW CUTTING NEEDED TO INSTALL THE L-1 CURB AND ANY TRENCH FOR ADJACENT LIGHTING OR TRAFFIC CONDUIT ARE INCLUDED IN THE BID PRICE FOR THIS ITEM.

THE HEIGHT OF THE NEW CURB PER ELEVATIONS NOTED ON THE PLANS.

REPLACE REMOVED CURB WITHIN TWO WORKING DAYS. AFTER EXCAVATION, PLACE NECESSARY BARRICADES OVER THE CUTS TO PROTECT THE PUBLIC.

ITEM 613 - LOW STRENGTH MORTAR BACKFILL
THIS ITEM TO BE USED AS A CONTINGENCY PAY ITEM. INSTALL LOW STRENGTH MORTAR BACKFILL FOLLOWING APPROVAL BY THE CITY ENGINEER OR THE CONSTRUCTION MANAGER IN RELATION WITH THE GRANITE CURB RESET, INSTALLATION OF ELECTRICAL CONDUIT AND/OR POLE FOUNDATIONS AS DEEMED APPROPRIATE BY THE CM.

INCLUDE ALL COSTS FOR INSTALLATION OF THE CDF AND FLOOR PREPARATION IN THE BID PRICE PER CUBIC YARD.

ITEM 629 - CURB RESET, GRANITE, INSTALLATION ONLY, AS PER PLAN
THIS WORK CONSISTS OF RETRIEVING AND TRANSPORTING GRANITE CURB FROM CITY STORAGE TO THE JOB SITE FOR INSTALLATION. THE REQUIRED AMOUNT IS BY APPROVAL OF THE CITY ENGINEER OR THE ONSITE INSPECTOR. COORDINATE WITH THE INSPECTOR TO ACCESS THE STORAGE SITE.

GRANITE CURB MATERIAL REQUIRED FOR THE JOB WILL BE PICKED UP AT THE CITY YARDS ON MILL CREEK RD. THE YARDS ARE LOCATED ON MILL CREEK ROAD OFF OF SPRING GROVE AVE. AT THE NORTH END OF CAMP WASHINGTON. CONTACT RYAN DEKORS, RIGHT OF WAY INSPECTOR, 513-478-0671. CONTRACTOR SHALL PICK THROUGH TO GET THE BEST AVAILABLE CURB, NOT BROKEN OR CHIPPED, FOR THE PROJECT. FIVE FOOT OR LONGER LENGTHS ARE RECOMMENDED. ASSURE PROPER HANDLING, TRANSPORTATION AND STORAGE OF MATERIAL AT THE JOB SITE.

THE HEIGHT OF THE RESET CURB SHALL BE PER GRADING ELEVATIONS (CURB REVEAL) AS NOTED ON THE PLANS. ALL REQUIRED CONCRETE BASE, FOOTER AND SHIMS FOR INSTALLING/LEVELING GRANITE CURB ARE INCLUDED IN THIS ITEM. TRANSPORTATION FROM THE STORAGE YARD TO THE SITE IS INCIDENTAL TO THE INSTALLATION OF GRANITE CURB.

MAINTAIN PROTECTED EXCAVATION FOR CURB INSTALLATION. MAINTAIN IN PLACE NECESSARY BARRICADES OVER THE CUTS TO PROTECT PEDESTRIANS UNTIL RESET WORK IS COMPLETED.

ALL EXCAVATIONS AND SAW CUTTING NEEDED TO INSTALL THE CURB AND ANY TRENCH FOR ADJACENT LIGHTING OR TRAFFIC CONDUIT ARE INCLUDED IN THE BID PRICE FOR THIS ITEM.

- ITEM 639 - ARCHITECTURAL POLE TYPE A-1**
- ITEM 639 - ARCHITECTURAL POLE TYPE A-2**
- ITEM 639 - ARCHITECTURAL POLE TYPE A-3**
- ITEM 639 - ARCHITECTURAL POLE TYPE A-4**
- ITEM 639 - ARCHITECTURAL POLE EXTENSION - TYPE X - 1**
- ITEM 639 - ARCHITECTURAL POLE FOUNDATION - TYPE 1 - 4'-0" X 1' - 4"**
- ITEM 639 - POLE BOOT - TYPE 3"**
- ITEM 639 - POLE CAP - TYPE 3"**
- ITEM 639 - BIKE RING - INSTALLATION ONLY**

THIS WORK CONSISTS OF PROVIDING THE ARCHITECTURAL POLES AND ACCESSORIES PER DETAILED DRAWINGS AND PER THE 2016 CITY OF CINCINNATI SUPPLEMENT TO THE ODOT CMS. COLOR: SEMI GLOSS BLACK, FEDERAL COLOR NUMBER 27038, 30% SHEEN. INSTALLATION OF THE POLES IS CONSIDERED PART OF THE "SUBSTANTIAL COMPLETION" REQUIREMENTS. SUBSTANTIAL COMPLETION FOR THE POLE INSTALLATION SHALL BE TEN (10) DAYS PRIOR TO CONTRACT SUBSTANTIAL COMPLETION TO ALLOW FOR METERS AND TRAFFIC SIGNS INSTALLATION. LIQUIDATED DAMAGES WILL BE ASSESSED FOR TEN (10) DAYS AFTER POLE INSTALLATION IF POLES WERE NOT INSTALLED IN A TIMELY MANNER FOR METER AND TRAFFIC SIGN INSTALLATION.

ANY DAMAGED AREAS THAT REQUIRE TOUCH UP PAINT SHALL NOT EXCEED MORE THAN .5% (1/2%) SURFACE AREA OF THE ITEM TO BE TOUCHED UP. DAMAGE GREATER THAN .5% WILL REQUIRE RE-POWDER COATING THE ENTIRE PIECE REQUIRING THE REMOVAL OF THE ENTIRE POWDER COATING SURFACE PRIOR TO REPAINTING. REPAINTING CONSTITUTES THE ACCEPTANCE BY THE PAINTER THAT THE GALVANIZED SURFACE MEETS THE SPECIFICATIONS. DAMAGED AREAS INCLUDE SCRATCHES TO THE SURFACE TYPICALLY OCCURRING IN TRANSIT OR INSTALLATION AND ARE CONSIDERED "TOUCH UP". IMPROPER MATERIAL PREPARATION DURING WELDING OR GALVANIZING THAT REQUIRES FIELD REPAIR AND SUBSEQUENT RE-POWDER COATING ARE NOT CONSIDERED "TOUCH UP". THE ENTIRE TOUCH UP PAINTING PORTION OF THE PROJECT TO BE INSPECTED BY THE PROJECT ARCHITECT.

THE FABRICATOR WILL PROVIDE THE PROJECT ARCHITECT RECEIPTS FROM BOTH THE GALVANIZER AND THE FINISHER FOR THIS PROJECT STATING THE FOLLOWING: THE POLE HAS BEEN GALVANIZED AND POWDER COATED PER THE SPECIFICATIONS WITHIN THIS PROJECT'S SPECIAL PROVISIONS. THE FINAL AND BOOT ARE CAST ALUMINUM AND POWDER COATED PER THE SPECIFICATIONS WITHIN THIS PROJECT'S SPECIAL PROVISIONS.

POLES REQUIRING REPAIRS, REPAINTING, ETC., AFTER THEY HAVE BEEN INSTALLED, MUST BE REPLACED SO AS TO NOT DISRUPT PARKING AND TRAFFIC PATTERNS. REMOVAL OF THE POLES FOR REPAIR OR REPAINTING WILL RESULT IN LIQUIDATED DAMAGES FOR SUBSTANTIAL COMPLETION.

ITEM 653 - TOPSOIL FURNISHED AND PLACED, SOIL MIX A
THIS ITEM SHALL CONSIST OF PROVIDING ALL LABOR AND MATERIALS TO PROVIDE THE SPECIFIED TOPSOIL AT ALL PROPOSED TREE WELL LOCATIONS PER PLANS AND DETAIL SHEETS.

UNCLASSIFIED EXCAVATION, ITEM #503 IS NOT INCLUDED IN THIS PAYMENT ITEM

PAYMENT FOR THIS ITEM SHALL BE MADE AT THE UNIT BID PRICE OF CUBIC YARD OF TOPSOIL FURNISHED AND PLACED, SOIL MIX A.

ITEM 712 GEOTEXTILE FILTER FABRIC, NONWOVEN, AS PER PLAN

THIS ITEM SHALL CONSIST OF PROVIDING ALL LABOR AND MATERIALS TO PROVIDE THE SPECIFIED FILTER FABRIC AT ALL PROPOSED TREE WELL LOCATIONS WHERE PVIOUS PAVEMENT AND AGGREGATE BASE ARE; PER PLANS AND DETAIL SHEETS. FABRIC SHALL BE A NON-WOVEN GEOTEXTILE, MARAFI 140N OR TYPAR FABRIC, STYLE 3341, OR APPROVED EQUAL (FOR GROUNDWATER RECHARGE). PLACE FILTER FABRIC BETWEEN AGGREGATE AND NATURAL SOIL AT ALL LOCATIONS. PLACE FILTER FABRIC IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. THE CONTRACTOR SHALL SECURE THE FABRIC AND TAKES STEPS NECESSARY TO PREVENT RUNOFF OF SEDIMENT FROM ENTERING THE STORAGE BED.

ITEM SPECIAL - PRECAST CONCRETE LIGHT POLE PLINTH

THIS WORK CONSISTS OF PROVIDING AND INSTALLING PRECAST CONCRETE LIGHT POLE PLINTHS PER THE DETAILS AND REQUIREMENTS NOTED IN THE DRAWINGS. PROVIDE A SMOOTH FINISH TO RESEMBLE / SIMULATE NATURAL CUT LIMESTONE AND THAT MEETS THE REQUIREMENTS OF CITY STANDARD CLASS QC 1 CONCRETE. GROUT SHALL BE NON-SHRINK, NON-METALLIC GROUT. PROVIDE A SAMPLE AND SHOP DRAWINGS AS REQUIRED PER PLANS. REQUIRED SHOP DRAWINGS SHALL INCLUDE PROFILES, CROSS SECTIONS, ANCHOR BOLT HOLES, ETC. AS INDICATED ON THE DRAWINGS.

ITEM 1318 - LIGHT POLE

ITEM 1318 - LIGHT POLE, SPARE

ITEM 1325 - LUMINAIRE

ITEM 1325 - LUMINAIRE, SPARE

THE LIGHT POLE SHALL BE AS SPECIFIED ON THE DRAWINGS.
THE LUMINAIRE SHALL BE AS SPECIFIED ON THE DRAWINGS.

ONE (1) EXTRA POLES AND TWO (1) EXTRA LUMINAIRES ARE TO BE DELIVERED TO CITY STORAGE AT 2141 STATE AVE. THE CONTRACTOR SHOULD CONTACT TERRENCE DUKES, AT 352-4391 OR 378-6200, ONE (1) WEEKDAY IN ADVANCE FOR DELIVERY.

ALL ITEMS SHOULD BE LABELED WITH THE PROJECT NAME. THE CONTRACTOR SHALL BRING A LIST OF ALL ITEMS BEING DELIVERED, SIGNED BY THE CITY INSPECTOR. THE LIST WILL BE SIGNED, AND A COPY WILL BE RETURNED TO THE CITY INSPECTOR. THE DELIVERY PROCESS DESCRIBED ABOVE IS INCLUDED IN THE UNIT PRICE OF 'LIGHT POLE, SPARE' AND 'LUMINAIRE, SPARE'.



MAINTENANCE OF TRAFFIC, GENERAL REQUIREMENTS

THE REQUIRED WORK SHALL BE PERFORMED IN A MANNER THAT CAUSES THE LEAST INCONVENIENCE TO AND THAT PROVIDES THE MAXIMUM SAFETY FOR THE TRAVELING PUBLIC AND THE CONTRACTOR. THE REQUIREMENTS FOR MAINTAINING TRAFFIC AS INDICATED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (REFERRED TO AS THE "OMUTCD"), CURRENT EDITION, AND PERTINENT ITEMS IN THE ODOT SPECIFICATIONS 614, AND AS REQUESTED BY THE ENGINEER SHALL APPLY IN ADDITION TO THE FOLLOWING NOTES.

SHOULD ANY PAVED AREAS NOT DESIGNATED FOR RESURFACING BECOME DAMAGED OR DESTROYED DURING CONSTRUCTION DUE TO THE CONTRACTOR'S NEGLIGENCE OR FAILURE TO PROVIDE ADEQUATE SIGNS, BARRICADES, DRUMS, FLAGGERS OR OTHER TRAFFIC CONTROL DEVICES, THE RESTORATION OF THE PAVED AREAS SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND TO THE SATISFACTION OF THE ENGINEER.

TEMPORARY PAVEMENT MARKINGS (REMOVABLE TYPE) SHALL BE IN PLACE PRIOR TO A STAGE OF CONSTRUCTION BEING OPENED TO TRAFFIC.

DRUMS SHALL BE REFLECTORIZED, AND USED IN ACCORDANCE WITH ITEM 614.03 AND THE OMUTCD. DRUMS SHALL BE SPACED AT A MAXIMUM INTERVAL OF 25 FEET CENTER TO CENTER UNLESS SHOWN OTHERWISE ON THESE PLANS OR AS DIRECTED BY THE ENGINEER. DRUMS SHALL BE SPACED AT 10 FOOT INTERVALS ALONG ALL CURB RADII. THE CONTRACTOR SHALL ADJUST THE SPACING ON ALL DRUMS AS DIRECTED BY THE ENGINEER TO ALLOW ACCESS AS REQUIRED, WHILE MAINTAINING SAFETY DURING CONSTRUCTION.

THE CONTRACTOR WILL BE REQUIRED TO PROVIDE, ERECT, MAINTAIN (PROPER POSITION, KEPT CLEAN AND LEGIBLE, AND IN GOOD WORKING CONDITION), AND REMOVE LIGHTS, SIGNS, DRUMS, AND ALL OTHER TRAFFIC CONTROL DEVICES NECESSARY FOR THE MAINTENANCE OF TRAFFIC. ALL SIGNS SHALL BE REFLECTORIZED OR ILLUMINATED. PLACEMENT OF ALL TRAFFIC CONTROL DEVICES SHALL START AND PROCEED IN THE DIRECTION OF THE FLOW OF TRAFFIC. REMOVAL OF TRAFFIC CONTROL DEVICES SHALL BEGIN AT THE END OF THE CONSTRUCTION AREA AND PROCEED TOWARD ONCOMING TRAFFIC. THE CONTRACTOR SHALL PROVIDE FOR THE INSTALLATION OF ALL NECESSARY TRAFFIC CONTROL DEVICES BEFORE BEGINNING WORK AND IMMEDIATELY REMOVE THESE DEVICES WHEN WORK IS SUSPENDED OR COMPLETE.

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 MAINTAIN ACCESS TO ALL LOCAL DRIVES, PRIVATE OR PUBLIC, WITHIN THE PROJECT LIMITS THROUGHOUT CONSTRUCTION.

BEFORE THE WORK BEGINS, THE CONTRACTOR WILL PROVIDE THE ENGINEER WITH THE NAMES AND TELEPHONE NUMBERS OF TWO (2) PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE ENGINEER, AFFECTED PUBLIC AGENCIES, AND ALL INTERESTED POLICE AGENCIES, TO REPAIR AND/OR REPLACE THE TRAFFIC CONTROL DEVICES AS NEEDED TO MAINTAIN THE SAFETY OF THE TRAVELED PAVEMENT.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 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 614, MAINTAINING TRAFFIC.

DURING THE CONSTRUCTION OF THE UNDERGROUND FACILITIES AND/OR THE CONSTRUCTION OF THE ROADWAY WIDENING AND ASPHALT COURSES, THE CONTRACTOR SHALL MAINTAIN TRAFFIC ON A TWO-WAY BASIS THROUGH THE PROJECT AT ALL TIMES (DURING BOTH WORKING AND NON-WORKING HOURS). THE TRAFFIC SHALL BE MAINTAINED AT ALL TIMES IN A SAFE AND CONVENIENT MANNER OF A PAVED SURFACE.

DURING THE COURSE OF A NORMAL WORKING DAY, THE CONTRACTOR SHALL INSURE THE SAFETY OF THE PUBLIC OF PROVIDING A SUFFICIENT NUMBER OF FLAGMEN TO ASSIST THE TRAFFIC FLOW THROUGH THE CONSTRUCTION AREA, AS REQUIRED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO STRICTLY ADHERE TO ALL APPLICABLE SECTIONS FOR THE MAINTENANCE OF TRAFFIC, PUBLIC SAFETY AND PUBLIC CONVENIENCE AS SET FORTH IN THE C&MS AND THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS". THE CONTRACTOR WILL NOT BE PERMITTED TO BEGIN ANY PHASE OF WORK UNTIL THE REQUIRED STANDARD BARRICADES, WARNING SIGNS, ETC., ARE IN THE PROPER POSITION. THE DEVICES PROVIDED FOR THIS REQUIREMENT MUST BE IN FIRST CLASS CONDITION.

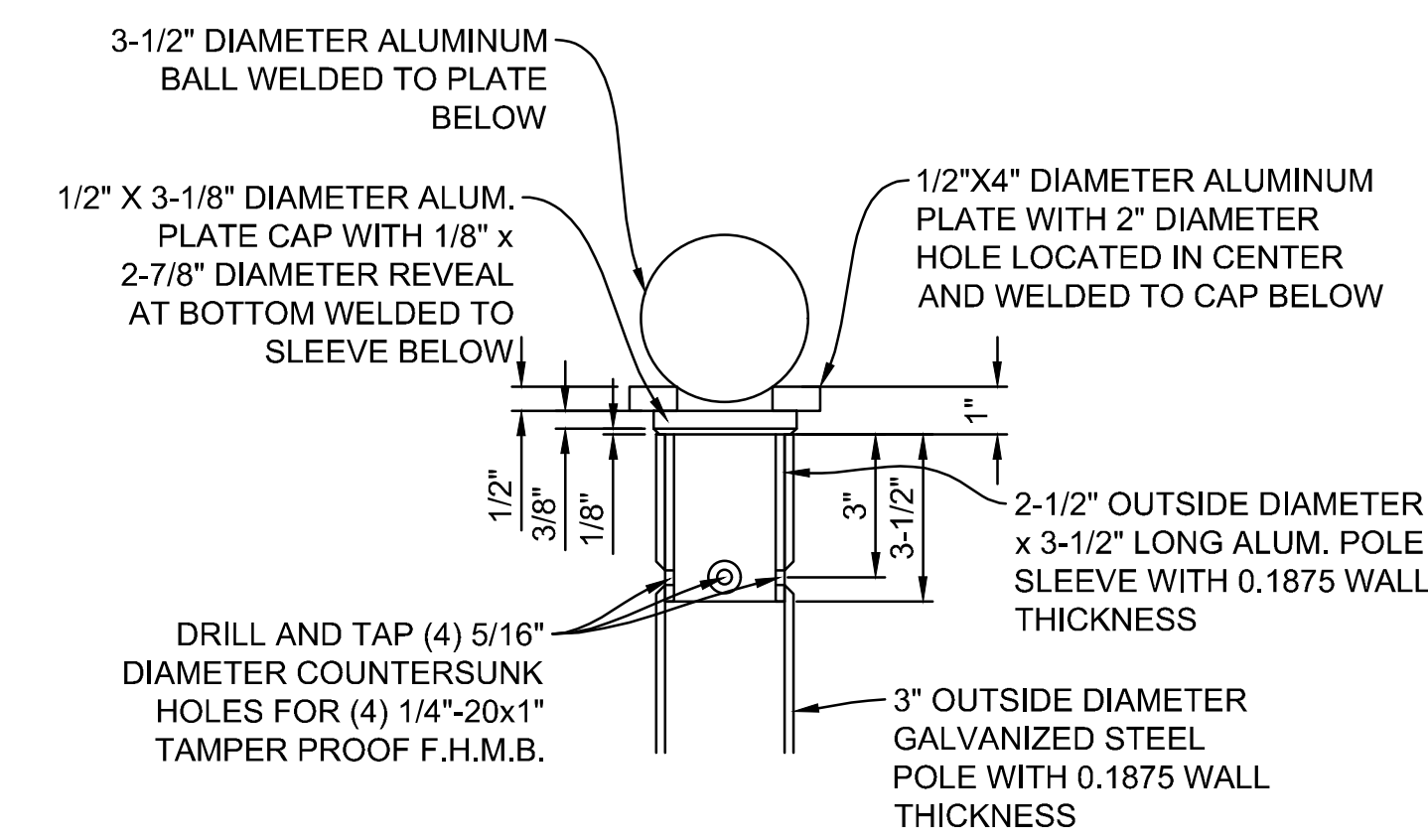
AT ALL TIMES, THE CONTRACTOR SHALL ADEQUATELY MARK, THROUGH THE USE OF BARRELS, FLASHING LIGHTS, PORTABLE GATES AND/OR OTHER DEVICES APPROVED BY THE ENGINEER, THE LIMITS OF THE PROJECT AREA AND THOSE AREAS OF THE SITE THAT ARE TEMPORARILY CLOSED TO TRAFFIC

DURING THE VARIOUS PHASES OF CONSTRUCTION AND MAINTENANCE OF TRAFFIC, THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR COVERING ANY EXISTING TRAFFIC SIGNS WHICH ARE TO REMAIN IN PLACE AND WHICH WOULD INDICATE INFORMATION TO THE TRAVELING PUBLIC WHICH WOULD CONTRADICT THE TRAFFIC FLOWS STIPULATED ON THE MAINTENANCE OF TRAFFIC PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COVERING OF THESE SIGNS AS DIRECTED BY THE ENGINEER AND SHALL BE SUBJECT AT ALL TIMES TO THE APPROVAL OF THE ENGINEER.

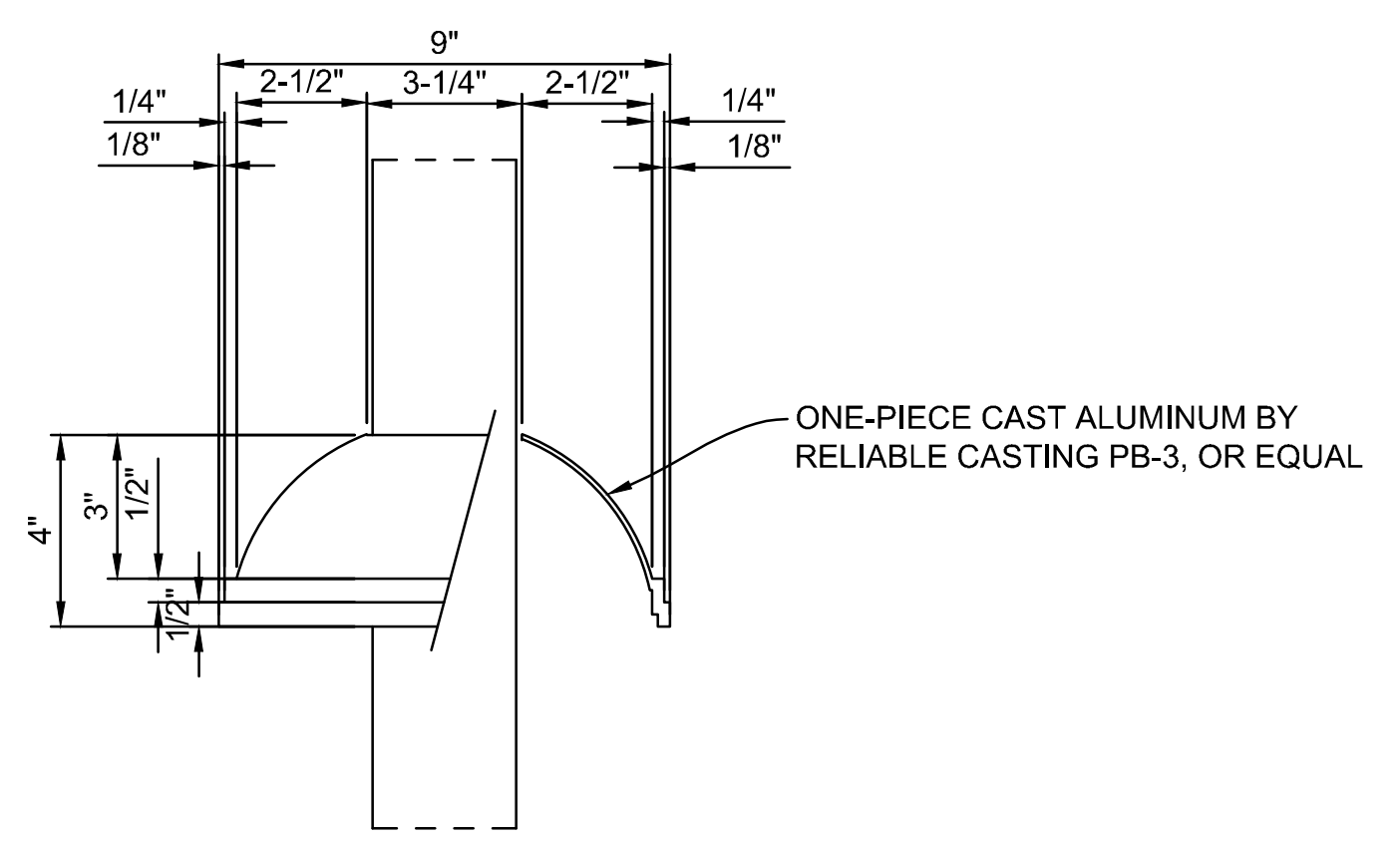
THE CONTRACTOR SHALL ALSO CONTINUALLY MONITOR ALL PAVEMENT SURFACES USED FOR THE MAINTENANCE OF TRAFFIC TO KEEP IT CLEAR OF DIRT, DUST AND DEBRIS.

CONTRACTOR SHALL MAINTAIN A MINIMUM OF TWO LANES OF TRAFFIC AT ALL TIMES.

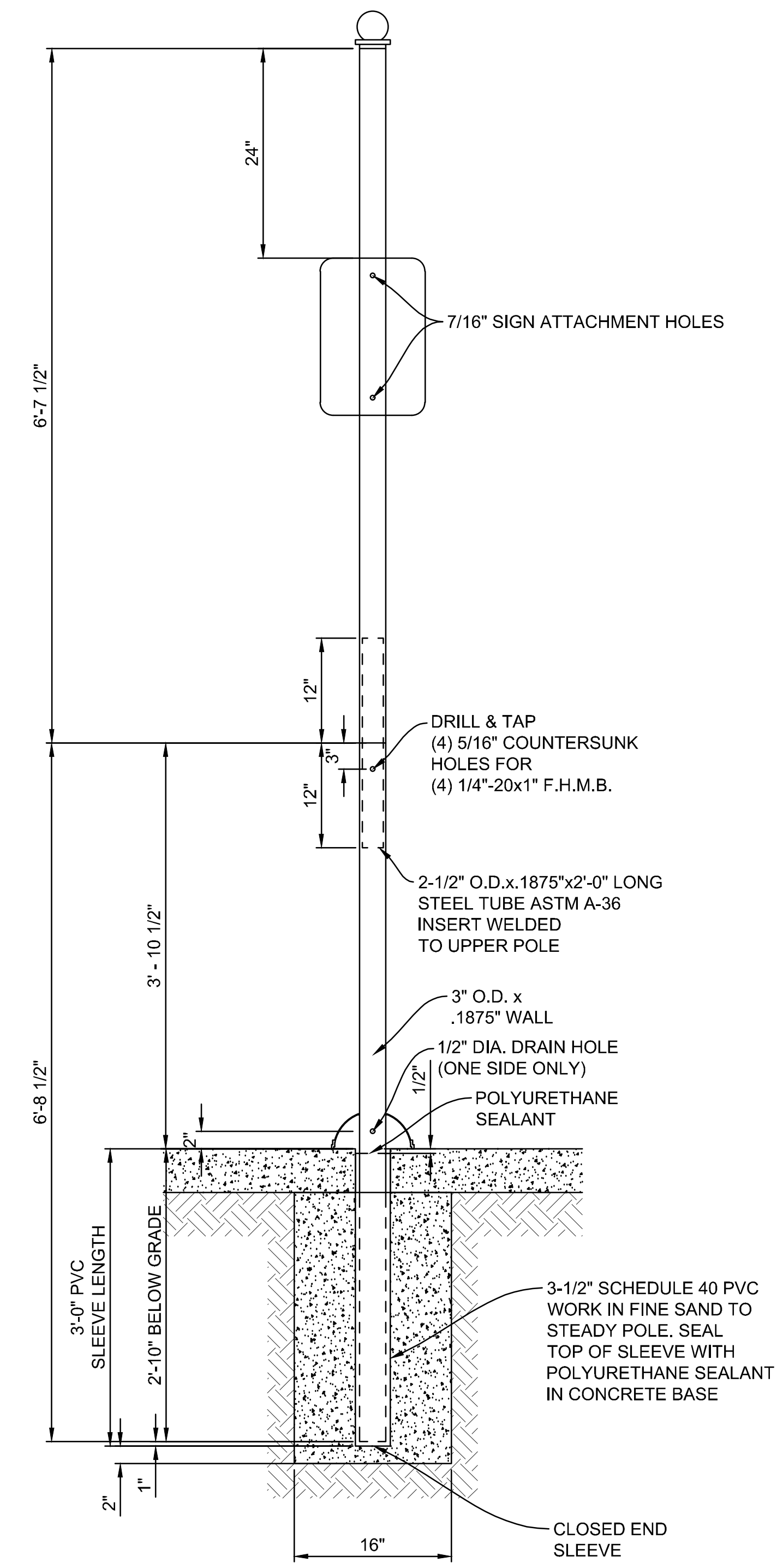
CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY OF CINCINNATI FOR THEIR REVIEW AND APPROVAL PRIOR TO STARTING CONSTRUCTION.



TYPICAL DETAIL 3" DIAMETER POLE CAP
3"=1'



TYPICAL DETAIL 3" DIAMETER POLE BOOT
3"=1'



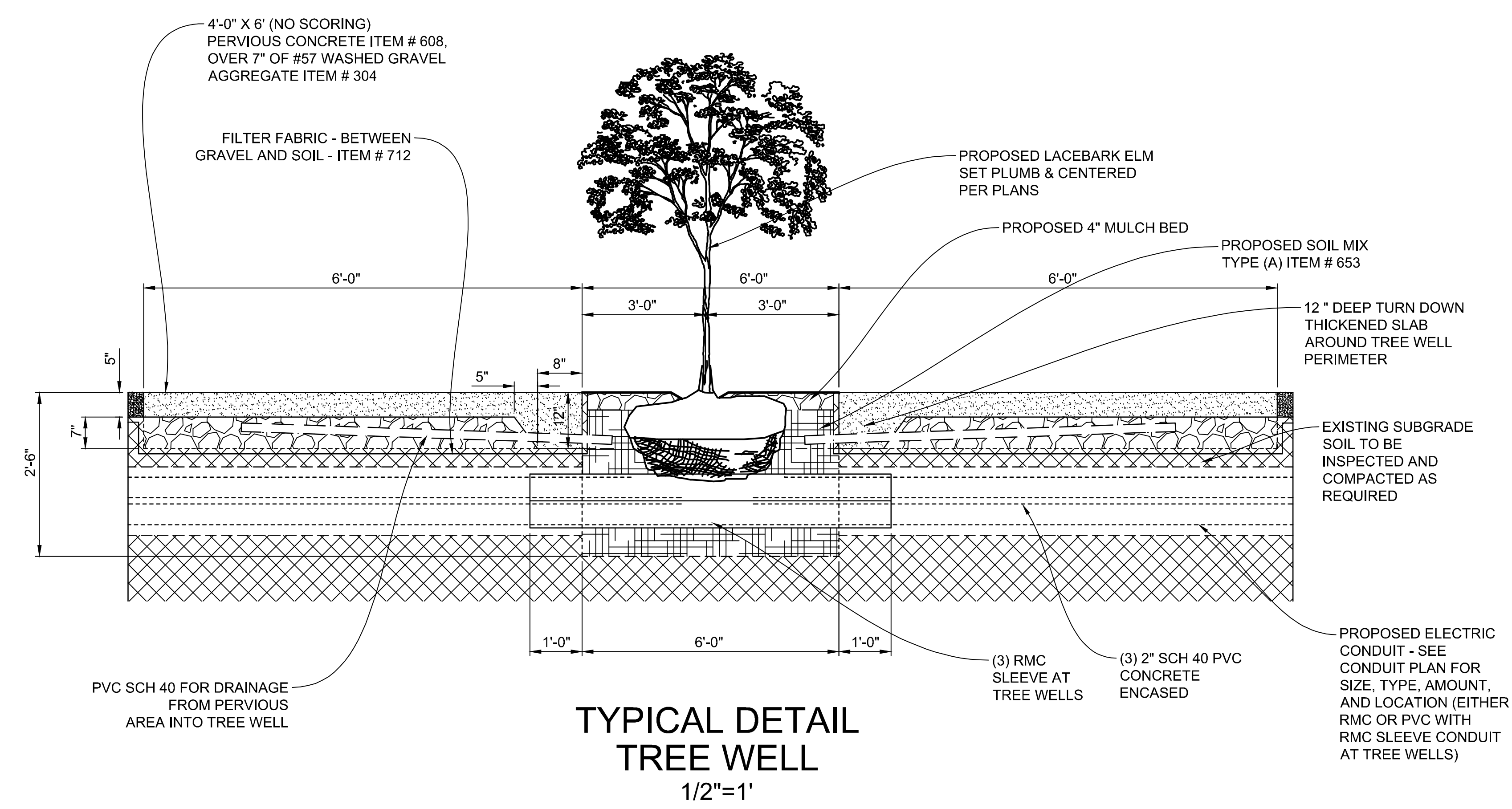
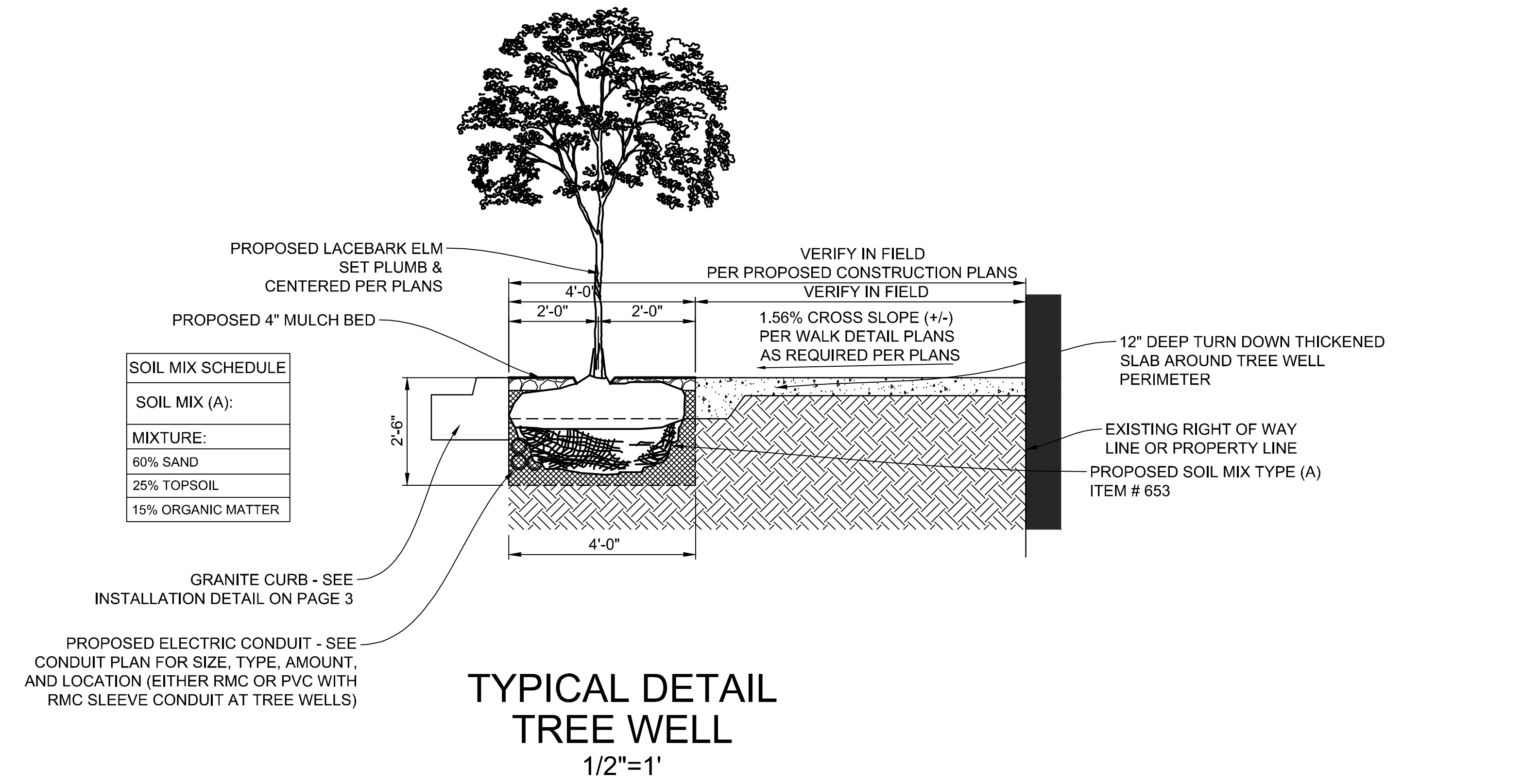
TYPICAL DETAIL
SIGN POLE
1"=1'

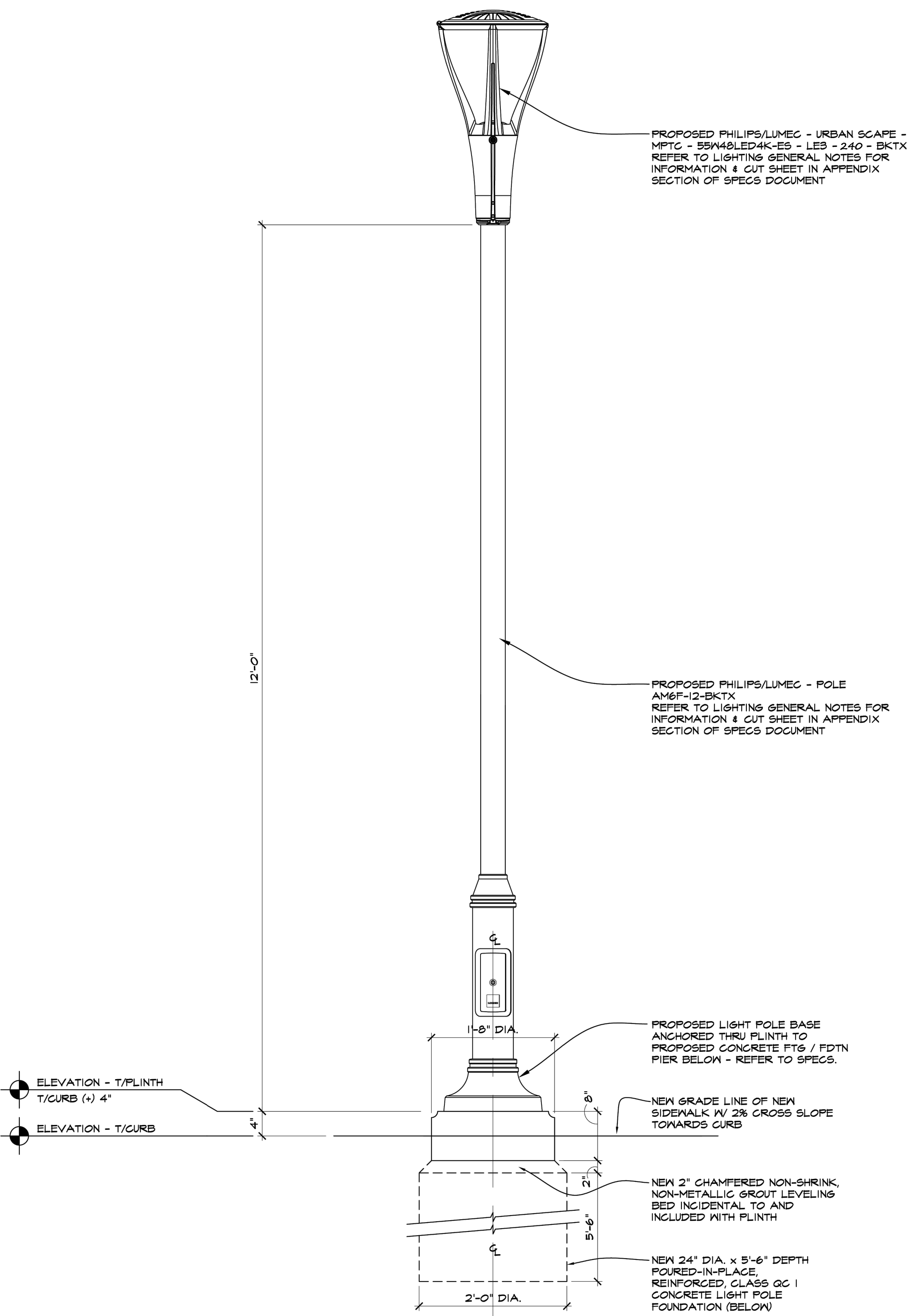
NOTES

- ALL SHOP DRAWINGS SHOULD BE PROVIDED TO CITY PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION
- UTILIZE THE FOLLOWING STANDARDS TO ALL SIGN POLES, BOOTS, PARKING METER HOLDERS, BALL CAPS, AND STREET NAME BRACKET
 - ASTM A-36: STRUCTURAL STEEL SHAPES, PLATES, AND CONNECTION MATERIALS
 - ASTM A123/A153: GALVANIZED STEEL - HOT DIP PROCESS
 - ASTM A325: ANCHOR BOLTS, BOLTS, NUTS AND WASHERS, HIGH STRENGTH UNLESS OTHERWISE NOTED
 - ASTM A501: STEEL PIPE OR TUBE - STANDARD WEIGHT AND SEAMLESS REFER TO CITY SUPPLEMENT, 2010, ITEM#639 AND SPECIFICATION ITEM#639. ALL STEEL HOT DIP GALVANIZED PER 711.02. ALL EXPOSED EXTERIOR SURFACES TO RECEIVE POWDER COAT PAINTED FINISH PER 708.06.
 - COLOR: FEDERAL COLOR NUMBER 27038, SEMI-GLOSS BLACK 30% SHEEN.

ITEM 661 - STREET TREE, AS PER PLAN
 TREES SHALL BE LACEBARK ELM. THE CONTRACTOR SHALL
 OBTAIN A NEW PLANTING PERMIT FROM URBAN FORESTRY.

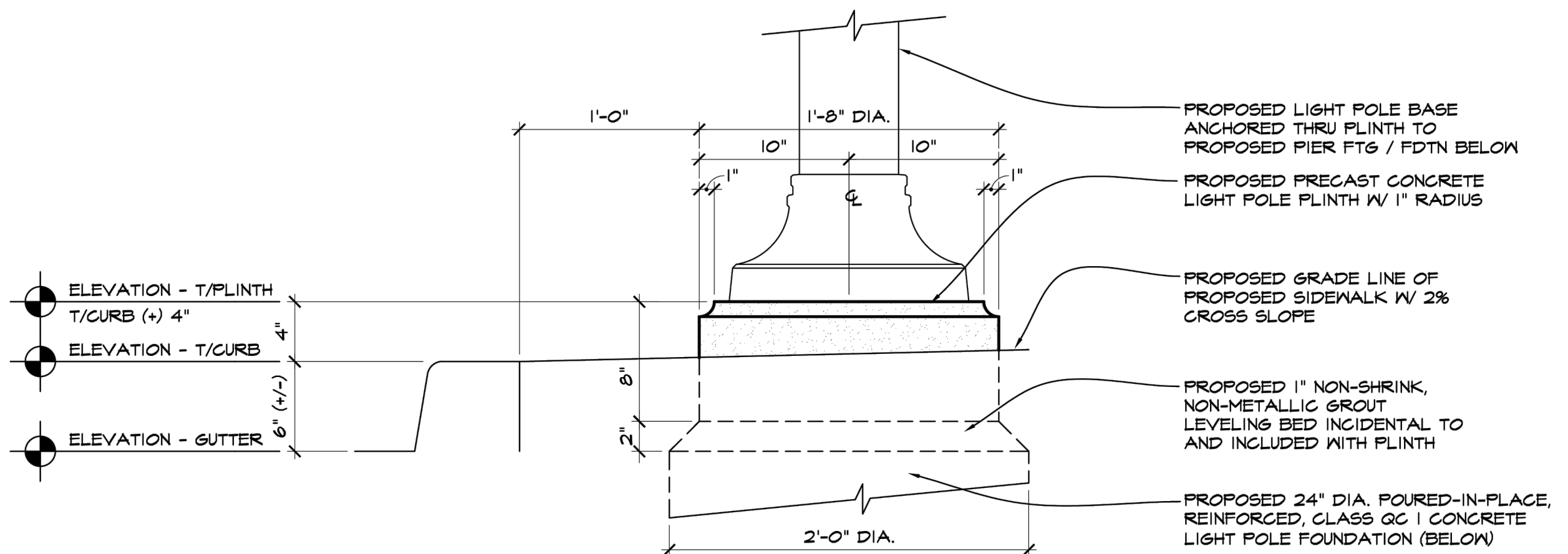
CONTACT:
 CINCINNATI PARKS URBAN FORESTRY
 JACOB EDWARDS, URBAN FORESTRY SPECIALIST
 3215 READING ROAD
 CINCINNATI, OH 45229
 513-861-9070
 JACOB.EDWARDS@CINCINNATI-OH.GOV





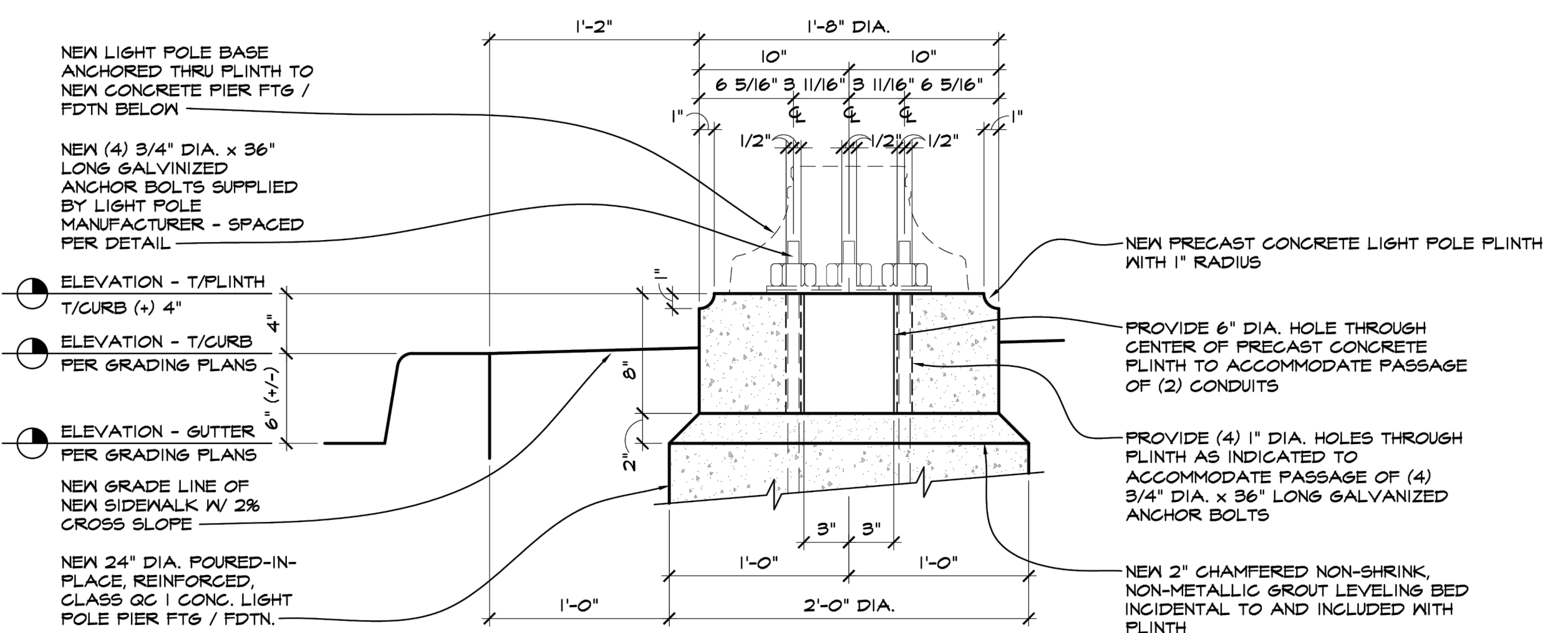
Single Head 12'-0" High Post Top
Proposed Light Pole Elevation

1
13



12'-0" High Light Pole - 10-1/2" Ø Bolt Circle
Elevation Detail - Proposed Precast Concrete Light Pole Plinth

2
13

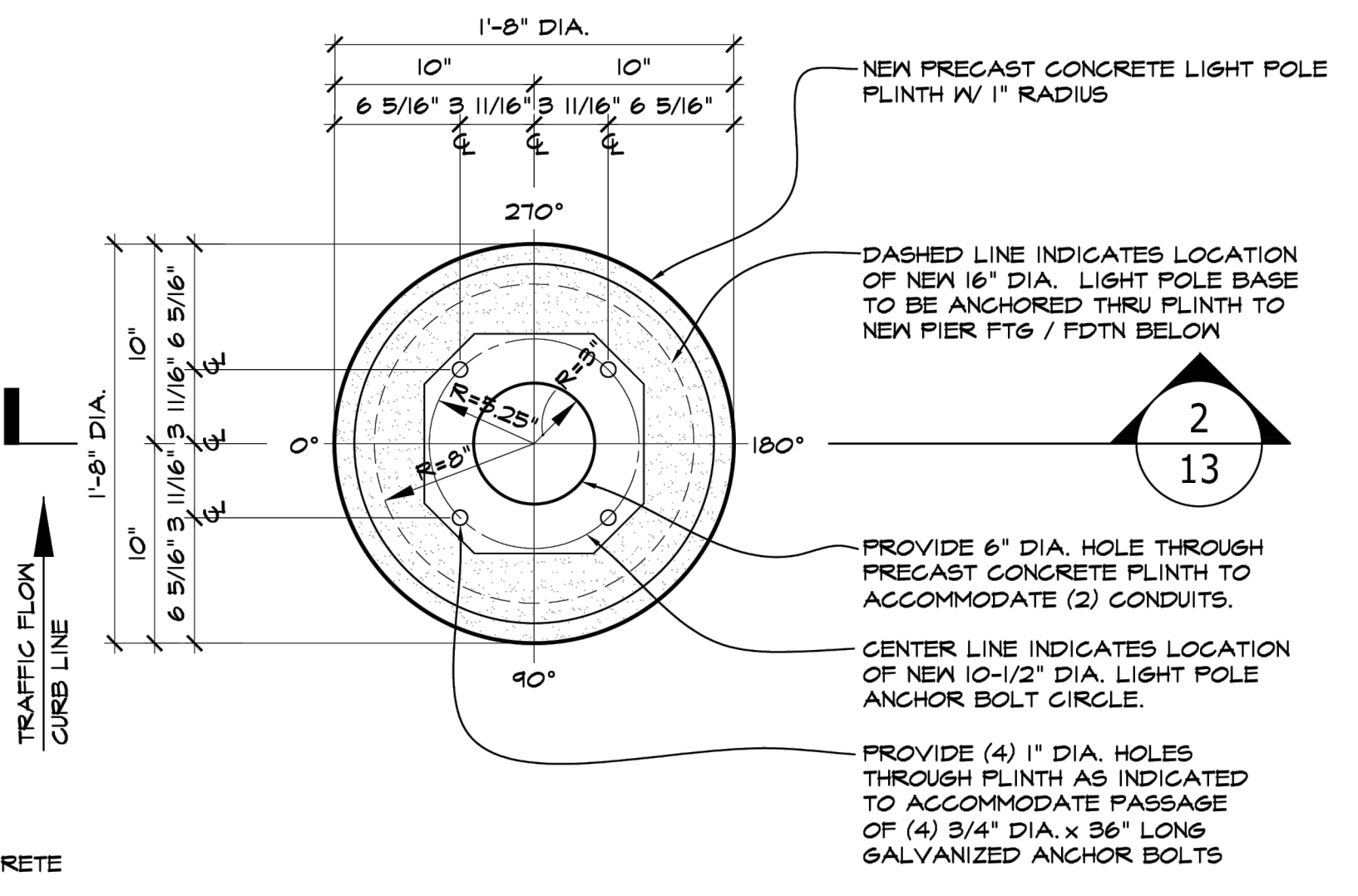


12'-0" High Light Pole - 10-1/2" Ø Bolt Circle
Section Detail - New Precast Concrete Light Pole Plinth

3
13

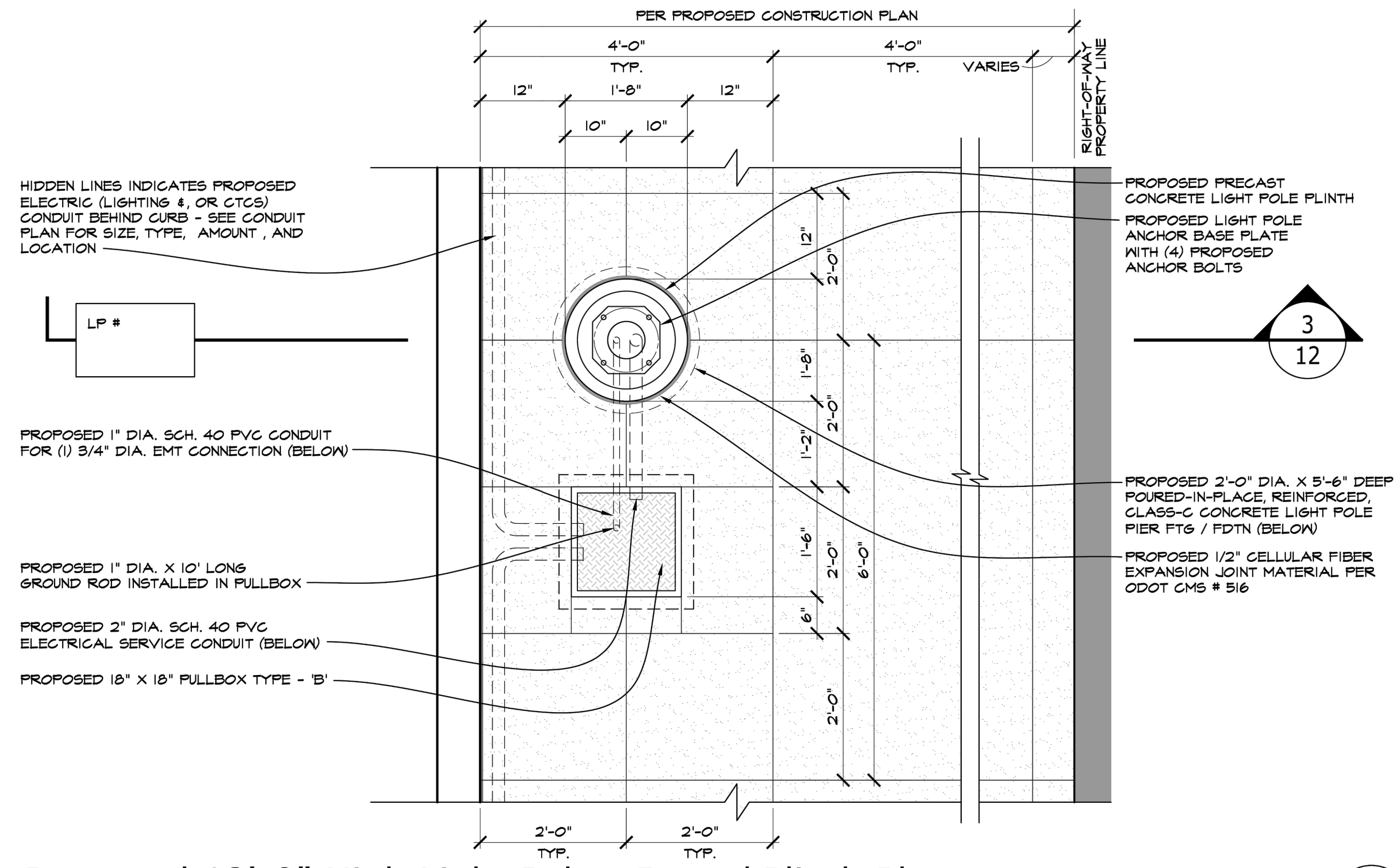
NOTES - PRECAST CONCRETE PLINTH:

1. CONTRACTOR RESPONSIBLE FOR SUBMISSION OF (4) SETS OF SHOP DRAWINGS OF PRECAST CONCRETE PLINTH FOR REVIEW AND APPROVAL BY CITY ARCHITECT.
2. CONTRACTOR RESPONSIBLE FOR VERIFYING NUMBER, SIZE / DIAMETER AND LOCATION OF ANCHOR BOLTS W/ LIGHT POLE MANUFACTURER PRIOR TO PREPARATION OF SHOP DRAWINGS TO INSURE PROPER SIZE / DIAMETER AND LOCATION OF HOLES IN PLINTH FOR ANCHOR BOLTS TO PASS THROUGH.
3. CONTRACTOR RESPONSIBLE FOR VERIFYING AND COORDINATING SIZE / DIAMETER OF CENTRALLY LOCATED HOLE IN PLINTH FOR ELECTRICAL CONDUIT TO PASS THROUGH W/ ELECTRICAL CONTRACTOR PRIOR TO PREPARATION OF SHOP DRAWINGS.
4. CONTRACTOR RESPONSIBLE FOR SUBMISSION OF (1) MATERIAL SAMPLE TO CITY ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OF PRECAST CONCRETE PLINTH.

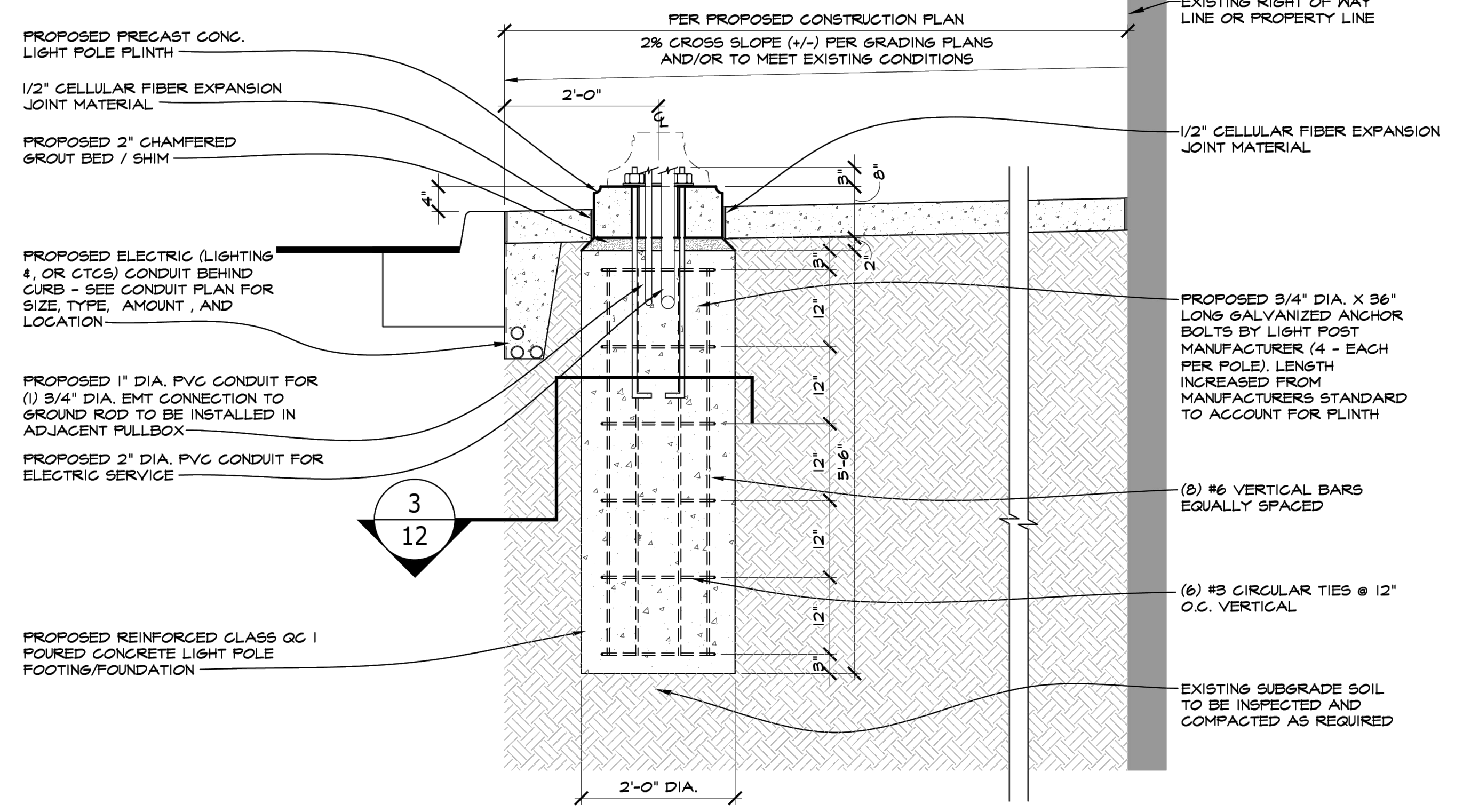


12'-0" High Light Pole - 1'-8" Round Plinth - 10-1/2" Ø Bolt Circle
Plan Detail - New Precast Concrete Light Pole Plinth

4
13

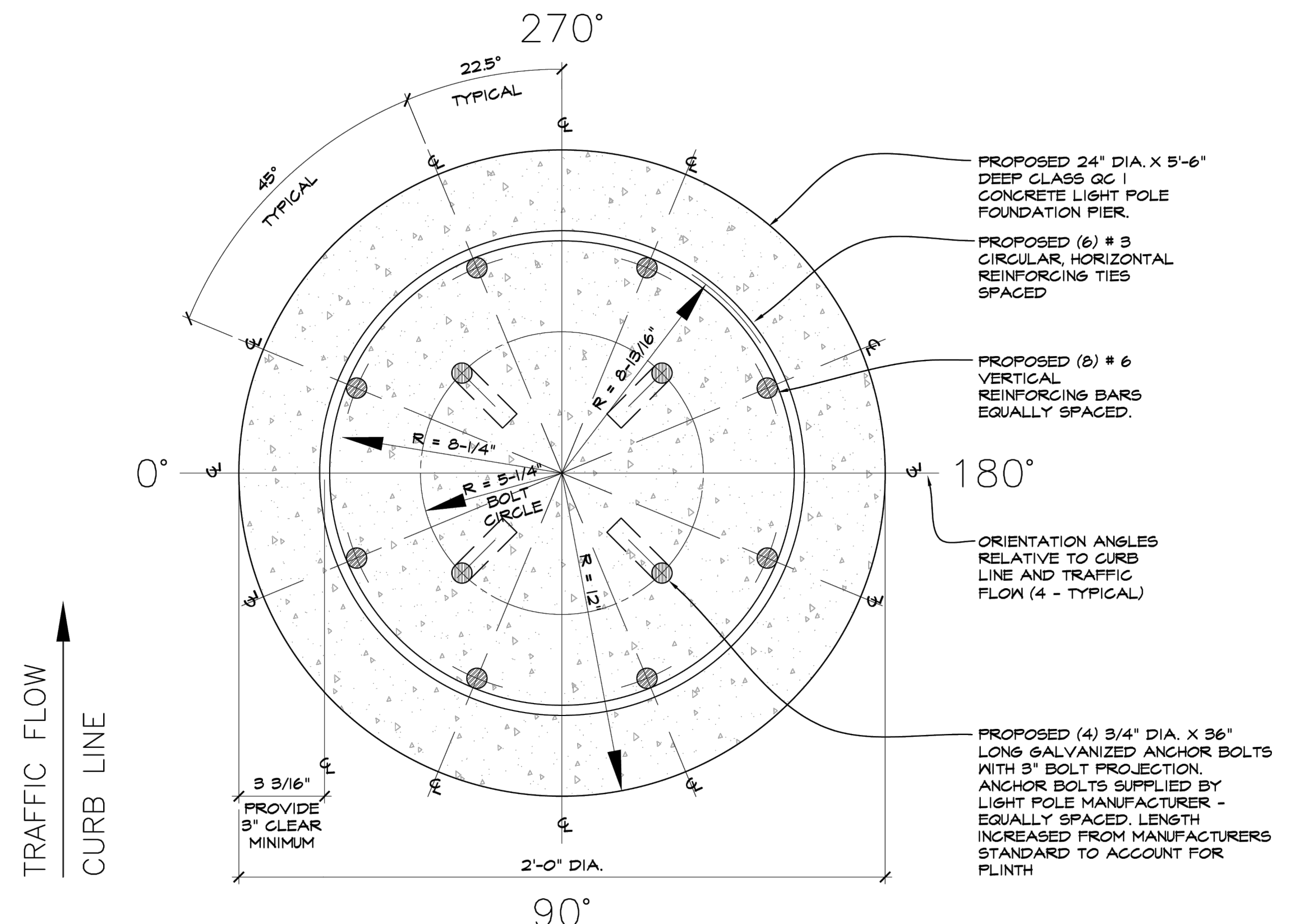


Proposed 12'-0" High Light Pole - Base / Plinth Plan
 3/4" = 1'-0" 1
12



Proposed 12'-0" High Light Pole - Foundation / Plinth Section
 3/4" = 1'-0" 2
12

DESIGN LOADS:
 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAYS, LUMINARIES AND TRAFFIC SIGNALS (5TH. EDITION) FOR 90 MPH WIND AND 50 YEAR RECURRENCE INTERVAL



Proposed 12'-0" High Light Pole Foundation Plan / Section Detail
 3/4" = 1'-0" 3
12

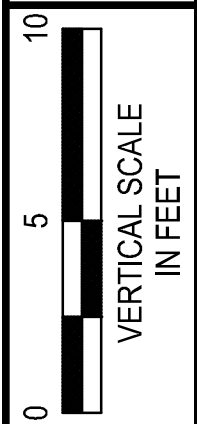
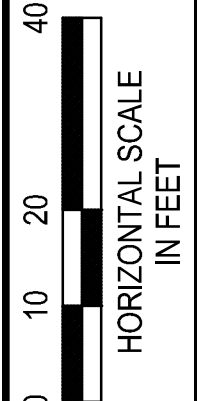
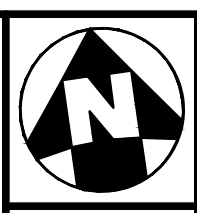
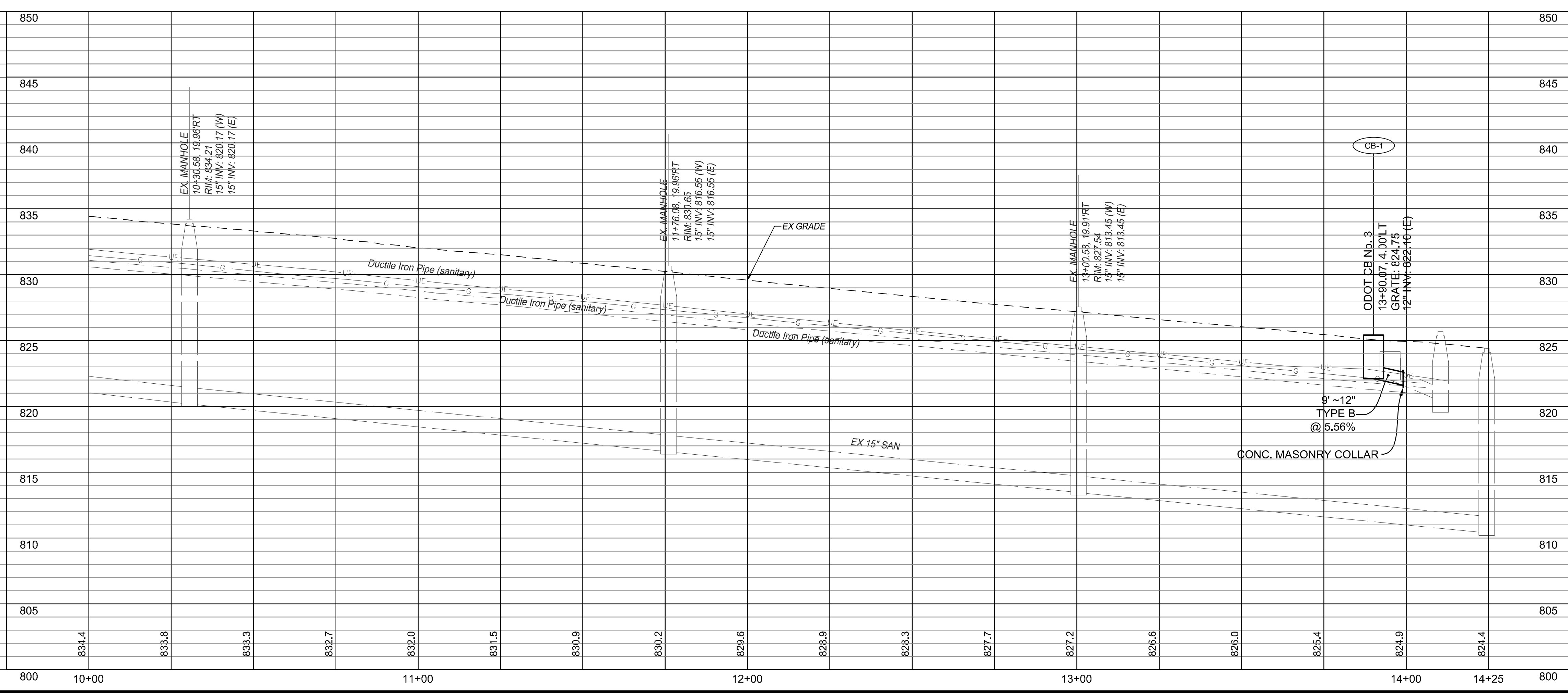
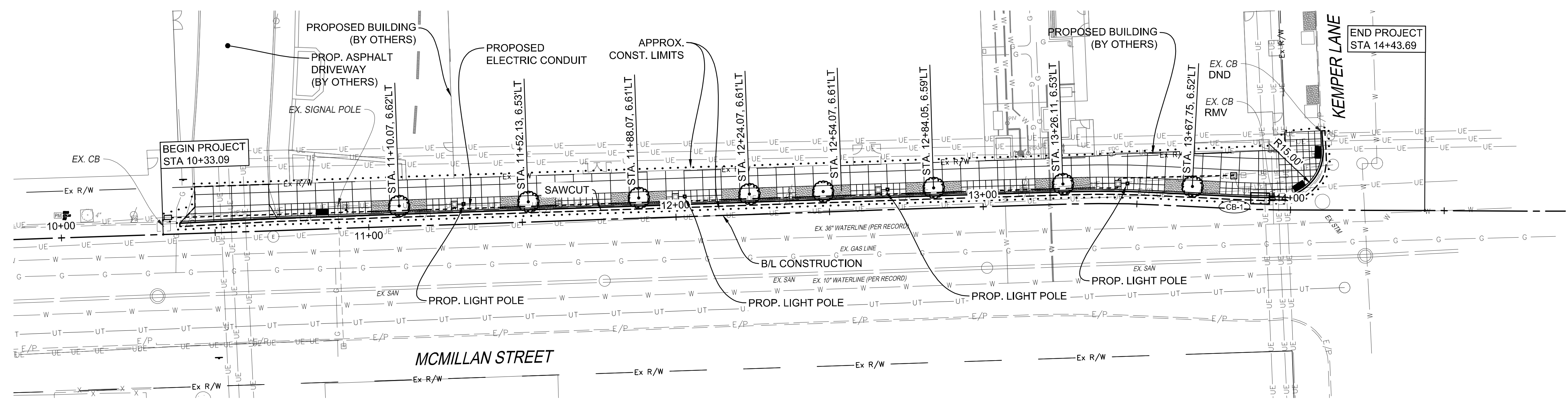
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PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS
 TYPICAL DETAILS



11
 21

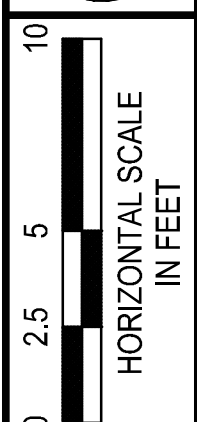
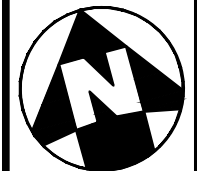
NOTE: STREET TREES ARE MOVABLE, FINAL LOCATION DEPENDS ON STREET LIGHT POLE LOCATION (FIXED) AND ACCESS TO BUILDING, WINDOWS, DRIVEWAYS, FIRE HYDRANTS, ETC.



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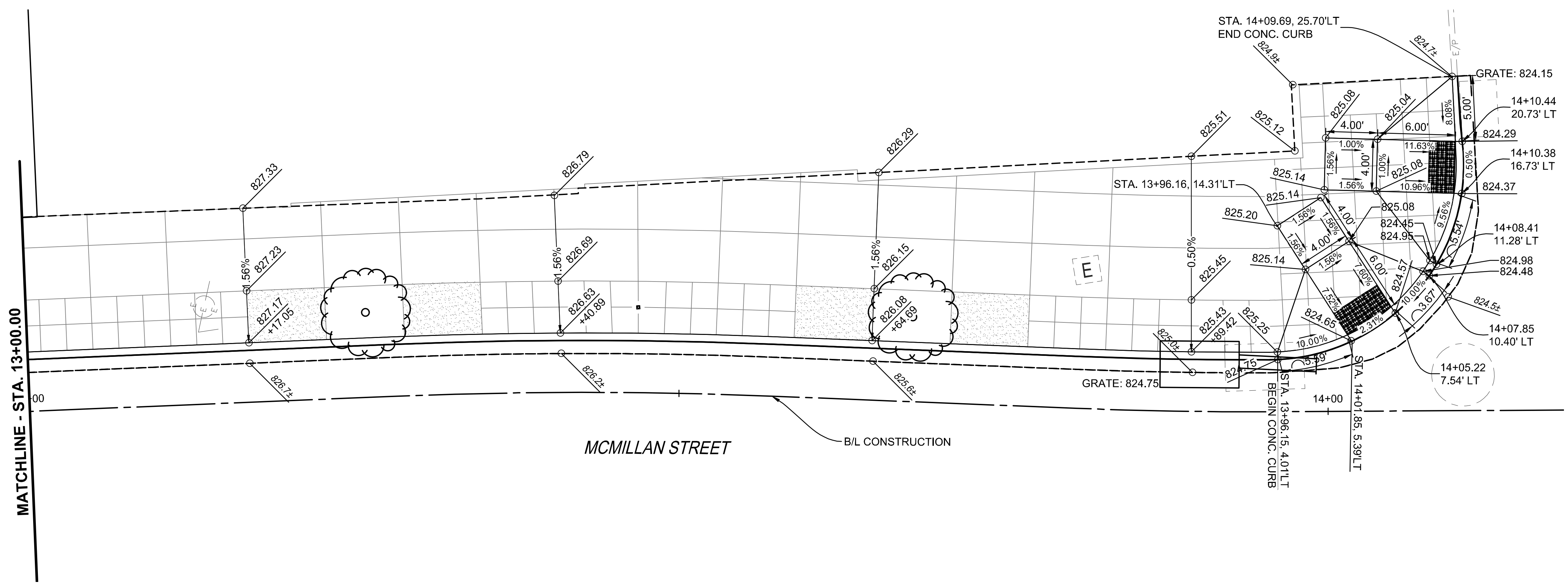
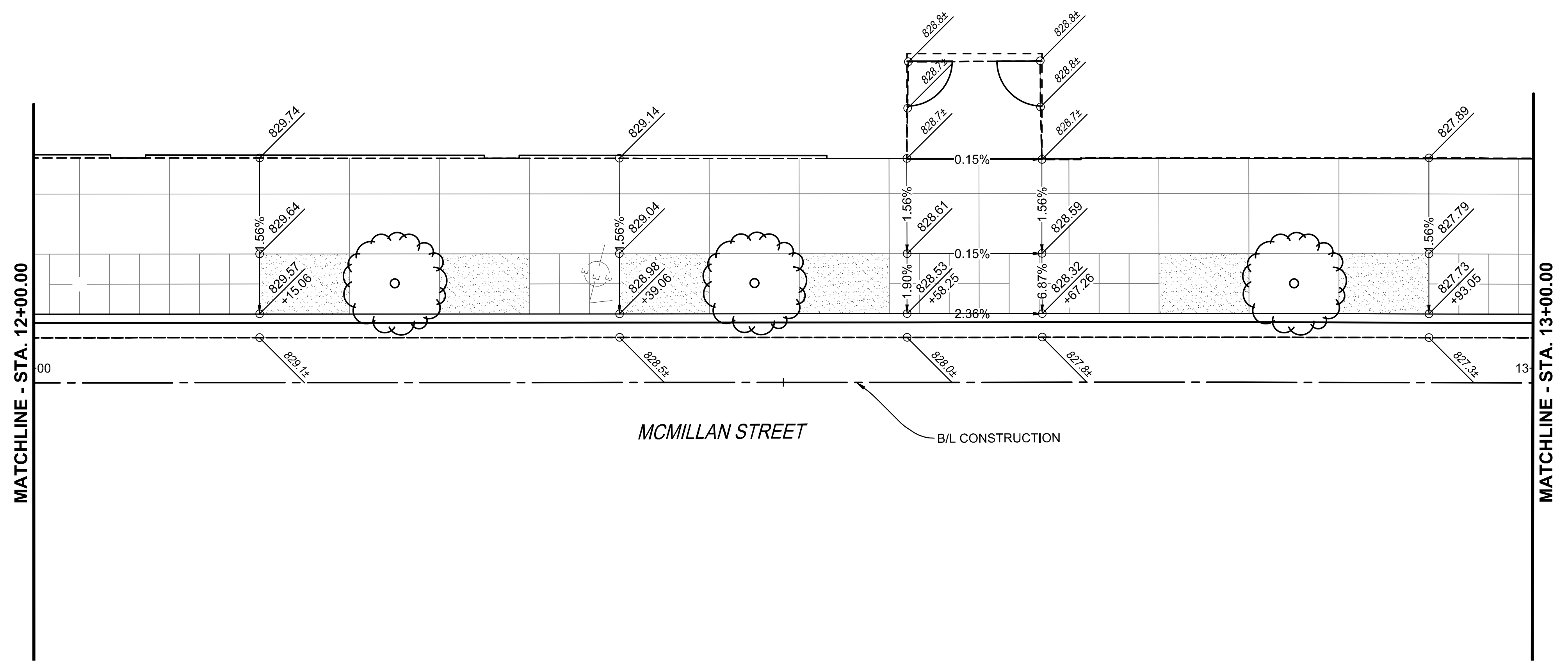
PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS
PLAN AND PROFILE - STA 10+00.00 TO STA 14+15.00





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PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS WALK DETAILS - STA 12+00.00 TO STA 14+15.00

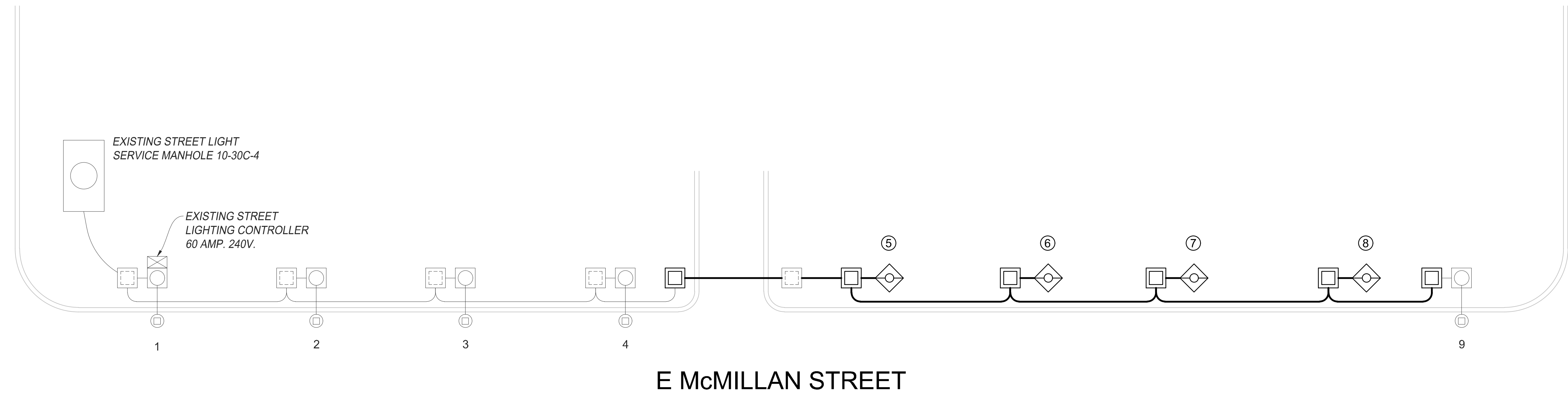


LEGEND

- MILL AND OVERLAY
- 5" PERVIOUS CONCRETE W/


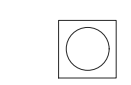

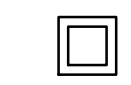
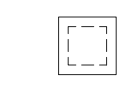

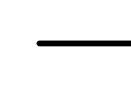
GILBERT AVENUE

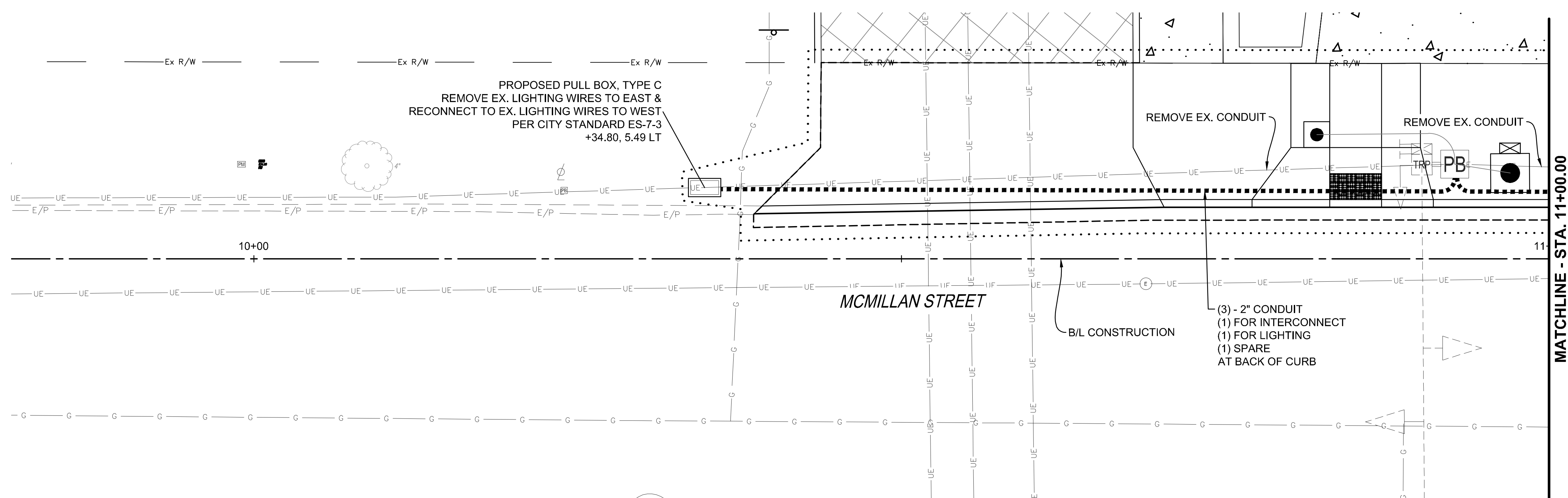
KEMPER LANE



E McMILLAN STREET

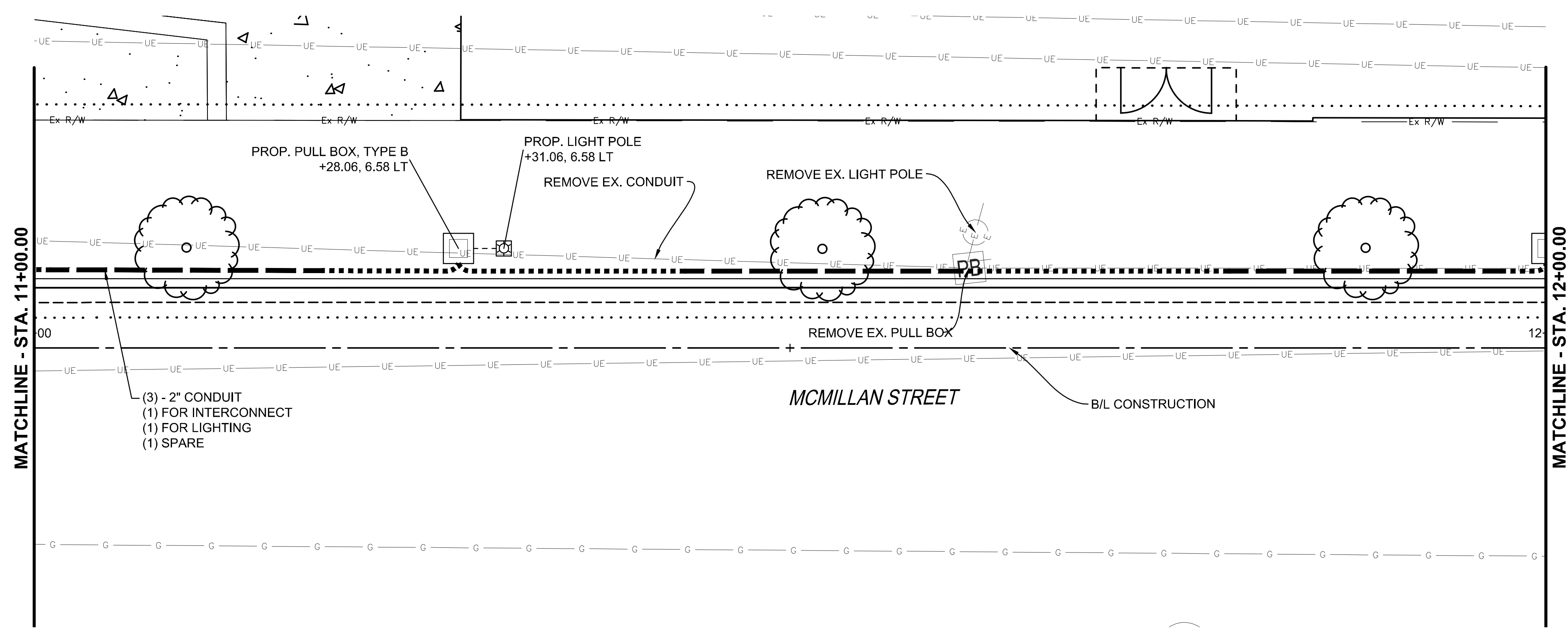
LEGEND

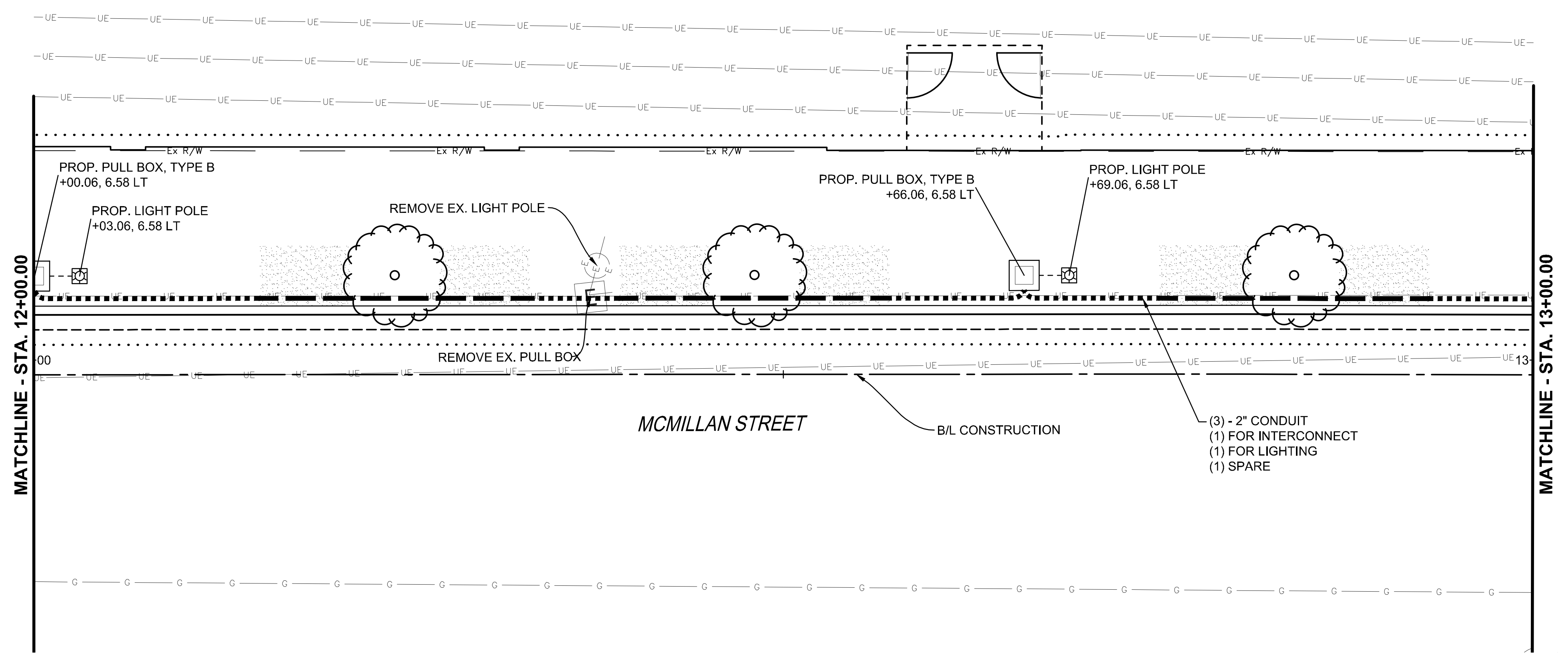
-  PROPOSED LIGHT POLE & FIXTURE, SEE SHEET 10
-  EXISTING LIGHT POLE
-  EXISTING CREE XSPLG 110 WATT
-  PROPOSED PULL BOX
-  EXISTING PULL BOX
-  EXISTING CONDUIT & WIRING
-  PROPOSED CONDUIT (PER SHEETS 16-17) & 3 #6 AWG WIRE





CONDUIT LEGEND

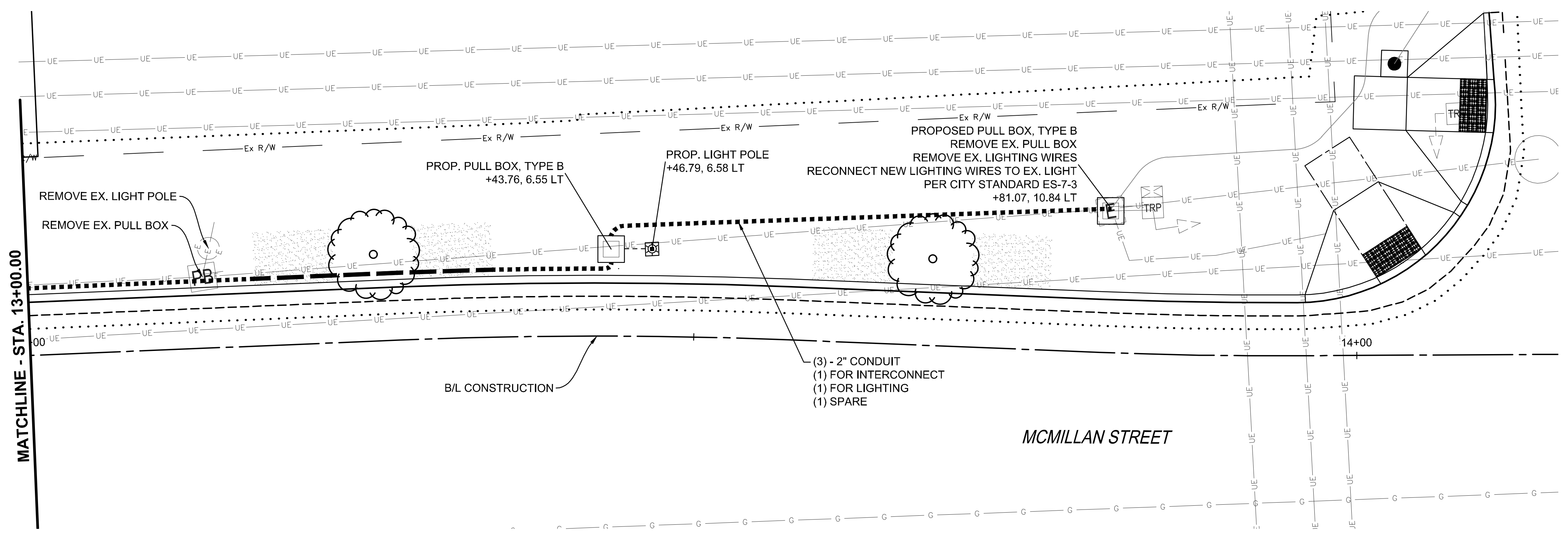
- CONCRETE ENCASED SCH 40 PVC
- PVC WITH RMC SLEEVE CONDUIT (WITHIN TREE WELLS)

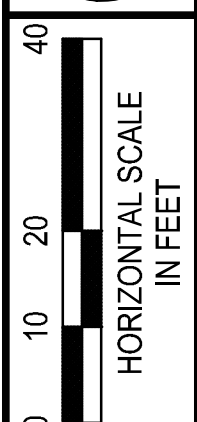




CONDUIT LEGEND

-  CONCRETE ENCASED SCH 40 PVC
-  PVC WITH RMC SLEEVE CONDUIT (WITHIN TREE WELLS)



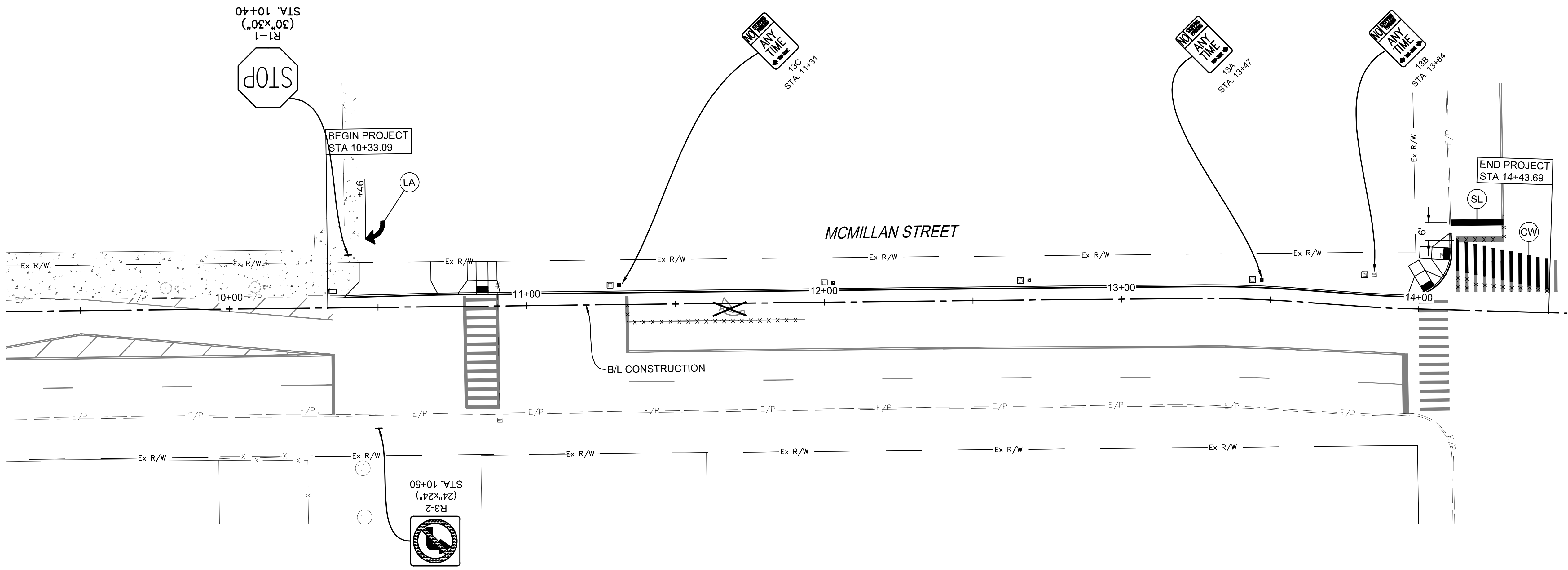


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PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS
TRAFFIC CONTROL - STA 10+00.00 TO STA 14+00.00



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CITY TO PROVIDE SIGNS IN RIGHT OF WAY AND BILL PERMIT.

- x x x - REMOVE EX. PAVEMENT MARKING

- PROPOSED SIGN

- EXISTING SIGN

- EXISTING SIGN TO BE REMOVED

LEGEND

- ITEM 644 - CROSSWALK LINE, WHITE, 12" X 10', 3' O.C.
- ITEM 644 - STOP LINE, WHITE, 24"

1314 MAINTENANCE OF EXISTING TRAFFIC SIGNAL

EXCEPT AS NOTED IN THE PLANS THE CONTRACTOR SHALL MAINTAIN AND KEEP OPERATIONAL THE EXISTING TRAFFIC SIGNAL UNTIL ALL OTHER EQUIPMENT HAS BEEN INSTALLED AND IS FUNCTIONAL. WORK WILL INCLUDE ANY MODIFICATIONS TO EXISTING OR TEMPORARY TRAFFIC SIGNAL INSTALLATIONS AS REQUIRED BY CHANGES IN CONSTRUCTION OR OPERATIONAL CONDITIONS IN THE PROJECT AREA THROUGHOUT THE ENTIRE CONTRACT PERIOD. THIS WILL INCLUDE RELOCATIONS, REMOVALS, COVERING OR UNCOVERING OF TRAFFIC/PEDESTRIAN SIGNALS AND ILLUMINATED/REFLECTORIZED SIGNS AND OTHER TRAFFIC SIGNAL EQUIPMENT, AND THE INSTALLATION OF TEMPORARY POLE GUYS TO SATISFY SAFETY AND OPERATIONAL CONDITIONS THROUGHOUT THE PROJECT. THIS WORK WILL BE PERFORMED AS DIRECTED BY THE ENGINEER.

TESTING SHALL MEET WITH THE REQUIREMENTS OF ODOT 632.28. PRIOR TO ACCEPTANCE THE CONTRACTOR SHALL CONDUCT A TEN (10) DAY BURN TEST OF THE COMPLETED AND OPERATIONAL STREET LIGHTING SYSTEM. THE LIGHTING SYSTEM SHALL OPERATE FOR TEN CONSECUTIVE DAYS WITHOUT INTERRUPTION AND BE FREE OF ANY MALFUNCTIONS.

WHERE PROPOSED NEW EQUIPMENT BLOCKS OR OBSCURES THE LINE OF SIGHT OF EXISTING EQUIPMENT, OR WHERE NEW EQUIPMENT IS PROPOSED IN THE SAME LOCATION AS EXISTING EQUIPMENT, THE CONTRACTOR SHALL TEMPORARILY ADJUST EXISTING OR NEW SIGNALS AND SIGNS. NEW TRAFFIC SIGNALS AND SIGNS WHICH WERE TEMPORARILY ADJUSTED, SHALL BE REPOSITIONED IN THE PROPOSED LOCATIONS AS INDICATED IN THE PLANS AFTER EXISTING EQUIPMENT IS REMOVED.

ALL ADJUSTMENTS SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER.

SCHEDULE CONSTRUCTION THROUGHOUT THE PROJECT TO MAINTAIN THE INTERCONNECT SYSTEM DURING THE CONTRACT PERIOD. USE EXISTING, TEMPORARY CABLE OR NEWLY INSTALLED INTERCONNECT TO MAINTAIN THE INTERCONNECT SYSTEM.

1303 EQUIPMENT QUALITY

ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND OF FIRST QUALITY AS PER SPECIFICATION 1303.

1306 CONTRACTOR FURNISHED EQUIPMENT

THE CONTRACTOR SHALL SUBMIT TO THE CITY TRAFFIC ENGINEER FOR REVIEW AND APPROVAL FOUR (4) SETS OF DRAWINGS, CATALOG CUTS, SPECIFICATIONS, DATA SHEETS, WIRING DIAGRAMS, ETC., FOR ALL APPARATUS AND EQUIPMENT THAT THE CONTRACTOR PROPOSES TO FURNISH. NO EQUIPMENT MAY BE PURCHASED OR INSTALLED WITHOUT WRITTEN APPROVAL.

1309 INSTALLATION PRACTICES

MINOR REPOSITIONING OF SIGNS OR SIGNALS MAY BE NECESSARY AND THE CONTRACTOR SHALL MAKE THE ADJUSTMENTS AS DIRECTED BY THE ENGINEER. WORK SHALL BE INCIDENTAL TO THE COST OF THE ITEM BEING REPOSITIONED.

1311 INSPECTION

IN ADDITION TO THE PROVISIONS OF ITEM 105.10, THE CONTRACTOR SHALL OBSERVE THE FOLLOWING:

1. ALL CONDUIT IN TRENCH SHALL BE APPROVED BEFORE BACKFILL AND/OR CONCRETE ENCASEMENT IS COMPLETED.
2. ALL FOUNDATIONS FOR ANCHOR BASE POLES, COMPLETE WITH ANCHOR BOLTS AND REBAR CAGES INTACT, SHALL BE APPROVED PRIOR TO CONCRETE POUR.

1313 TESTING

TESTING SHALL MEET THE REQUIREMENTS OF ODOT 625.19.

PRIOR TO ACCEPTANCE OF ANY NEW, REBUILT OR REPLACED TRAFFIC SIGNAL, THE TRAFFIC SIGNAL SHALL HAVE A FINAL TEST CONSISTING OF 30 MINUTES OF COLOR OPERATION WITHOUT FAILURE OR MALFUNCTIONS.

ALL GROUND RODS SHALL BE TESTED BY THE CONTRACTOR AND HAVE A RESISTANCE TO GROUND OF 25 OHMS OR LESS.

COST SHALL BE INCIDENTAL TO THE ITEM TESTED.

1317 PAINTING

WHEREVER REFERENCES IN THE CITY SPECIFICATIONS ARE MADE CONCERNING "RED LEAD", THE CONTRACTOR SHALL SUBSTITUTE THE MORE ENVIRONMENTALLY ACCEPTED SOYA-ALKYD PRIMER. REFER TO ITEM 1317. COST SHALL BE INCIDENTAL TO ITEMS SPOT PRIMED.

1318 STEEL POLES AND PEDESTALS

ALL STEEL POLES SHALL MEET ALL SPECIFICATIONS IN ITEM 1318 AND STANDARD DRAWING ES-10-1. ALL GALVANIZED EXTERIOR POLE SURFACES SHALL HAVE AN ELECTROSTATICALLY APPLIED POWDER COATING AND ONE COAT OF A ZINC DUST PRIMER (LIGHT GRAY). THE FINISH SHALL BE PROTECTED DURING TRANSPORTATION BY A SUITABLE PLASTIC OR RUBBER WRAPPING.

ALL POLES, AND ANY MATERIALS ATTACHED TO THEM, SHALL BE LOCATED A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE FACE OF THE POLE. THIS MAY REQUIRE ATTACHMENT HARDWARE IN EXCESS OF ONE FOOT FOR THE ATTACHMENT OF PEDESTRIAN SIGNALS TO POLES.

WHERE STREET LIGHTING BRACKET ARMS ARE SPECIFIED, POLE PLATES AND 1 1/2" HALF COUPLING SHALL BE WELDED TO THE POLE AS SHOWN IN ES-10-1 AND ES-10-3. BRACKET ARMS SHALL BE SIZE AND TYPE AS PER PLAN. CONTRACTOR TO INSTALL DEAD END CLEVIS TO SERVE STREET LIGHT.

CONTRACTOR SHOULD NOTE THAT NEW 4 INCH PEDESTRIAN SIGNAL PEDESTALS TO BE INSTALLED ARE NOW 10 FEET LONG AND DESIGNATED CITY DESIGN NO. 1045. FOUNDATION FDN-25 REMAINS THE SAME.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE POLES WHILE IN HIS POSSESSION. MINOR DEFECTS OR SCRATCHES ARE TO BE REPAIRED AS DIRECTED BY THE ENGINEER. IF ANY MAJOR DAMAGE OR SCRATCHES OCCUR, THE CITY SHALL REPLACE THE POLE WITH A DUPLICATE, AND THE CONTRACTOR SHALL REIMBURSE THE CITY THE COST OF THE DAMAGED POLE.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH ITEM AS SPECIFIED, AND SHALL BE FULL COMPENSATION FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY FOR EACH ITEM INSTALLED, COMPLETE IN PLACE AND ACCEPTED. (THE WELDING OF NIPPLES FOR CABLE ENTRANCE AND WEATHERHEADS SHALL BE INCIDENTAL TO THE INSTALLATION BY THE CONTRACTOR).

1319 FOUNDATIONS

ALL CONCRETE FOUNDATIONS SHALL BE CONSTRUCTED AS PER SPECIFICATION 1319 AND PER STANDARD DRAWING ES-1-1. ALL FOUNDATIONS SHALL INCLUDE ALL REINFORCING RODS, ANCHOR BOLTS AND CONDUIT ELLS.

FOUNDATIONS SHALL BE CURED FOR A MINIMUM OF SEVEN (7) DAYS BEFORE ERECTION OF POLES, POSTS AND CABINETS.

FOUNDATIONS SHALL BE CURED FOR A MINIMUM OF FOURTEEN (14) DAYS BEFORE LOADING IS APPLIED. SEE ODOT ITEM 632.14.

CURING TIMES CAN BE ACCELERATED USING FAST SET CONCRETE WITH THE SUBMITTAL OF PROPER MATERIAL DOCUMENTATION AND PRIOR APPROVAL FROM THE ENGINEER.

WHERE EXCAVATION CAUSES CAVING DUE TO SOIL CONDITIONS, THE USE OF CORRUGATED PIPE IS AUTHORIZED, AS DIRECTED BY THE ENGINEER. THE EXCAVATION IS TO BE BACKFILLED WITH CONTROL DENSITY FILL AFTER THE FOUNDATION HAS BEEN POURED. THE USE OF SONO-TUBE OR SIMILAR TUBING MATERIAL IS NOT PERMITTED.

THE COST OF THE PIPE, BACKFILL AND LABOR TO INSTALL IT SHALL BE INCIDENTAL TO THE COST OF THE FOUNDATION.

1320 GROUND RODS

A 1" x 10' COPPER CLAD STEEL GROUND ROD SHALL BE DRIVEN INTO THE BOTTOM OF PULLBOXES WHICH ARE ADJACENT TO POLE FOUNDATIONS SO THAT ONE (1) FOOT OF THE ROD IS EXPOSED IN THE PULLBOX. WHERE PULLBOXES ARE NOT ADJACENT TO POLES OR POSTS, DRIVE GROUND RODS ADJACENT TO THE POLE FOUNDATIONS AS PER STANDARD DRAWING ES-1-1.

PAYMENTS FOR THE GROUND RODS SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH ITEM INSTALLED COMPLETE WITH #4 AWG GROUND WIRE, EXOTHERMIC WELD, TESTED AND ACCEPTED. IF MORE THAN ONE GROUND ROD IS REQUIRED AT A LOCATION TO OBTAIN THE REQUIRED GROUND RESISTANCE, THE ADDITIONAL GROUND RODS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH AND SHALL INCLUDE ALL WIRE, CONNECTIONS AND OTHER MATERIALS AND LABOR TO INSTALL THE COMPLETE TESTED SYSTEM. TESTS SHALL COMPLY WITH ODOT SPEC. "625.19 - TESTING OF INSTALLATIONS".

1323 CABLES, CONNECTORS AND ACCESSORIES

TRAFFIC SIGNAL CABLE SHALL BE STRANDED COPPER CONDUCTOR AND MEET THE REQUIREMENTS OF IMSA SPECIFICATION 19-1 OR 20-1. ANY OTHER CABLE AND WIRE SHALL BE THE TYPE AND SIZE SPECIFIED IN ACCORDANCE WITH THE PLANS AND STANDARD DRAWINGS. ALL ACCESSORIES, SPLICES AND HARDWARE WILL BE INCLUDED WITH THE CABLE AND WIRE. THE CITY SHALL APPROVE ALL CONNECTIONS AND SPLICES.

CABLE TAGS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR PER PLANS AND DETAILS CONTAINED HEREIN. PAYMENT FOR CABLE TAGS AND THEIR INSTALLATION IS INCIDENTAL TO THE ITEM "CABLE SUPPLIED AND INSTALLED".

ALL POWER, FEEDER AND POLE AND BRACKET CABLE SHALL BE RHH/RHW/USE INSULATED AND RATED FOR 600 VOLTS, STRANDED COPPER WIRE MEETING THE REQUIREMENTS OF ITEM 1323.01. CONDUCTOR OUTER JACKET COLOR SHALL BE AS INDICATED ON PLAN SHEETS AND BE PROVIDED BY COLOR IMPREGNATING THE CONDUCTORS OUTER JACKET ALONG ITS ENTIRE LENGTH DURING THE MANUFACTURING PROCESS.

CONNECTOR KITS AND SPLICE KITS SHALL MEET THE REQUIREMENTS OF ODOT SPEC. ITEM 725.15.

CONNECTION OF ELECTRIC SERVICES TO THE DUKE ENERGY SECONDARY (120/240 VOLT) SYSTEM SHALL BE MADE BY DUKE ENERGY CREWS ONLY.

ALL COSTS TO UN-LASH AND RE-LASH CABLES TO EXISTING MESSENGER WIRE TO BE INCIDENTAL TO THE COSTS OF ITEM 1323.

1327 PEDESTRIAN SIGNALS

PEDESTRIAN SIGNALS SHALL BE OF ALUMINUM CONSTRUCTION WITH A BLACK FINISH AND SHALL BE THE TYPE D2 (16 INCH, 1 SECTION, LED, COUNTDOWN TYPE, INCANDESCENT LOOK). THE PEDESTRIAN SIGNAL SHALL HAVE AN INTEGRAL HAND/WALKING PERSON ON THE LEFT SIDE OF THE SIGNAL SECTION (PORTLAND ORANGE HAND AND LUNAR WHITE WALKING MAN) AND THE RIGHT SIDE OF THE SECTION HEAD SHALL CONTAIN A COUNTDOWN DISPLAY. SIGNALS SHALL BE PROVIDED WITH A 3/8" DRAIN HOLE IN THE BOTTOM. SIGNALS SHALL BE PROVIDED WITH 1 INCH DEEP EGGCRATE TYPE VISORS. ALL MOUNTING HARDWARE (CLAMHELL TYPE FOR STEEL POLES, PIPE MOUNT FOR WOOD POLES) SHALL BE INCLUDED IN THE PRICE OF THE SIGNAL. SEE STANDARD DRAWINGS ES-3-2 AND ES-3-6 FOR MORE INFORMATION. ALL MOUNTING HARDWARE (FITTINGS AND PIPE) SHALL BE UNPAINTED. THE PEDESTRIAN SIGNAL MUST HAVE AN ON/OFF SWITCH FOR THE COUNTDOWN PORTION OF THE DISPLAY.

ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE OF THE LED TYPE AND BE ON THE CURRENT ODOT PREQUALIFIED LIST (QPL).

1321 CONDUIT

ELECTRICAL CONDUIT UNDER SIDEWALKS OR SOD AREAS SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40, TYPE II, WITH CONCRETE ENCASEMENT. SIZE AS SPECIFIED IN PLANS.

CONDUIT UNDER STREETS SHALL BE GALVANIZED RIGID METAL CONDUIT (RMC) MEETING THE REQUIREMENTS OF ITEM 725.04. SIZE AS SPECIFIED IN PLANS.

CONDUIT IN SOD AREAS AND UNDER WALKWAYS OR SIDEWALKS SHALL HAVE A MINIMUM COVER OF 18". GALVANIZED STEEL CONDUIT UNDER ROADWAY SHALL HAVE A MINIMUM COVER OF 24". GROUND BUSHINGS SHALL BE PROVIDED TO GROUND RIGID METALLIC CONDUIT TO THE GROUND ROD IN THE PULLBOX.

1322 ELECTRICAL BOXES

PULLBOXES MAY BE CAST-IN-PLACE OR PRECAST. PRECAST PULLBOXES SHALL HAVE REINFORCING INCLUDED. REFER TO THE STANDARD DRAWING ES-2-1. ALL PULLBOXES IN SIDEWALK OR STREET AREAS SHALL HAVE THE FRAME AND LID CAST INTEGRAL WITH FINAL SIDEWALK OR PAVING. PRECAST PULLBOXES WITH INTEGRAL FRAMES AND LIDS SHALL NOT BE PERMITTED IN THESE AREAS. SUBMIT SEPARATE SUBMITTALS FOR ELECTRICAL BOXES IN SIDEWALK/PAVEMENT AND ELECTRICAL BOXES IN GRASS/SOD.

REMOVAL OF TRAFFIC SIGNAL INSTALLATION

THE CONTRACTOR SHALL REMOVE A PORTION OF THE TRAFFIC SIGNAL INSTALLATION AT THE MCMILLAN STREET CROSSWALK AND THE INTERSECTION OF KEMPER ROAD AT MCMILLAN ROAD PER THE ITEMIZED LIST BELOW. FOUNDATIONS DEEPER THAN 3.5 FEET SHALL BE REMOVED PER ODOT SPECIFICATION 632.26. OTHER EQUIPMENT DETERMINED BY THE CITY TO HAVE VALUE (SIGNALS, CABINET, POLES, ETC.) SHALL BE TRANSPORTED TO THE CITY OF CINCINNATI. AT THE DIRECTION OF THE CITY, OTHER EQUIPMENT SHALL BE DISPOSED OF BY THE CONTRACTOR.

ITEMS FOR REMOVAL AT THE EXISTING MCMILLAN STREET CROSSWALK TRAFFIC SIGNAL INSTALLATION ARE:

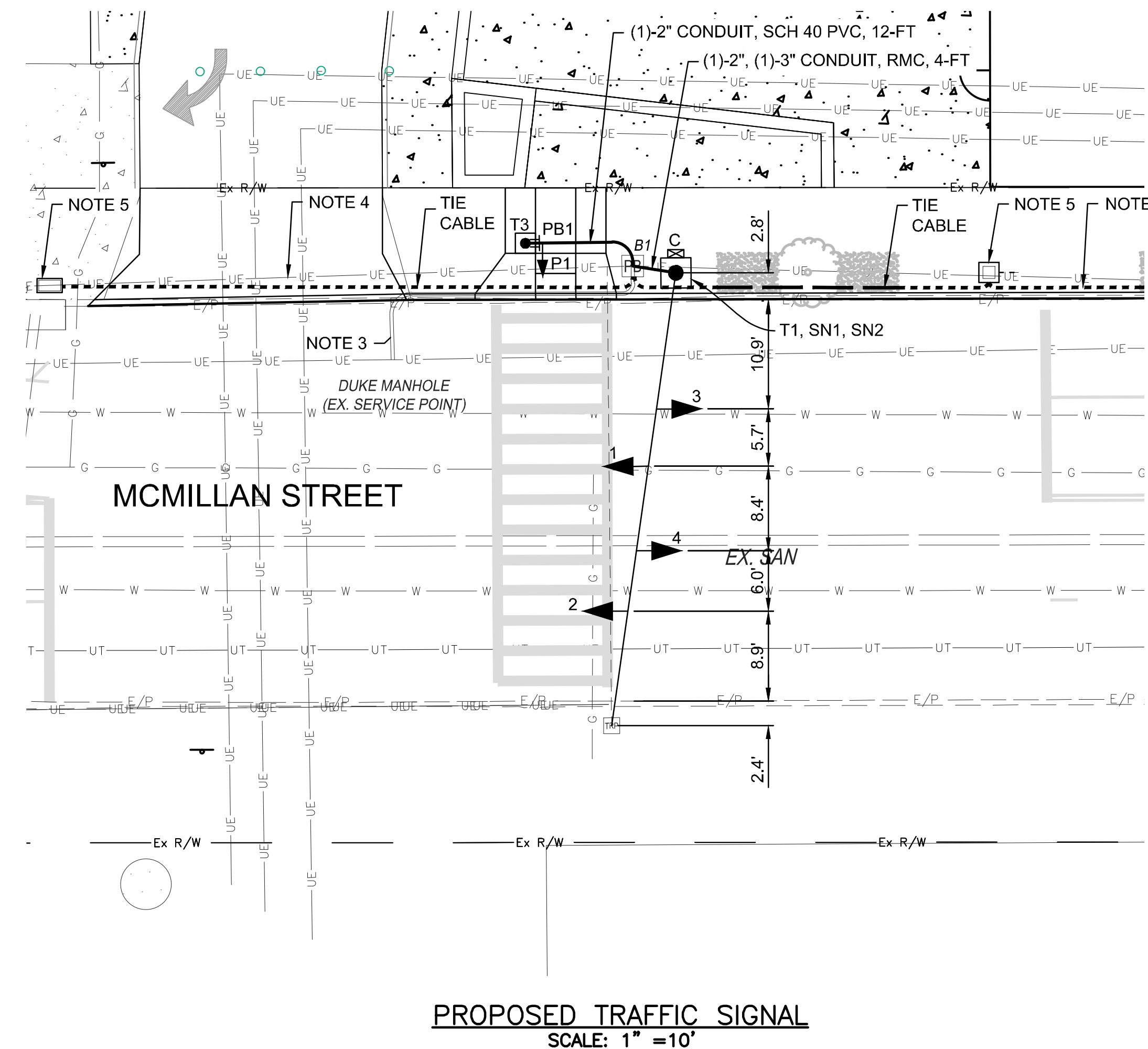
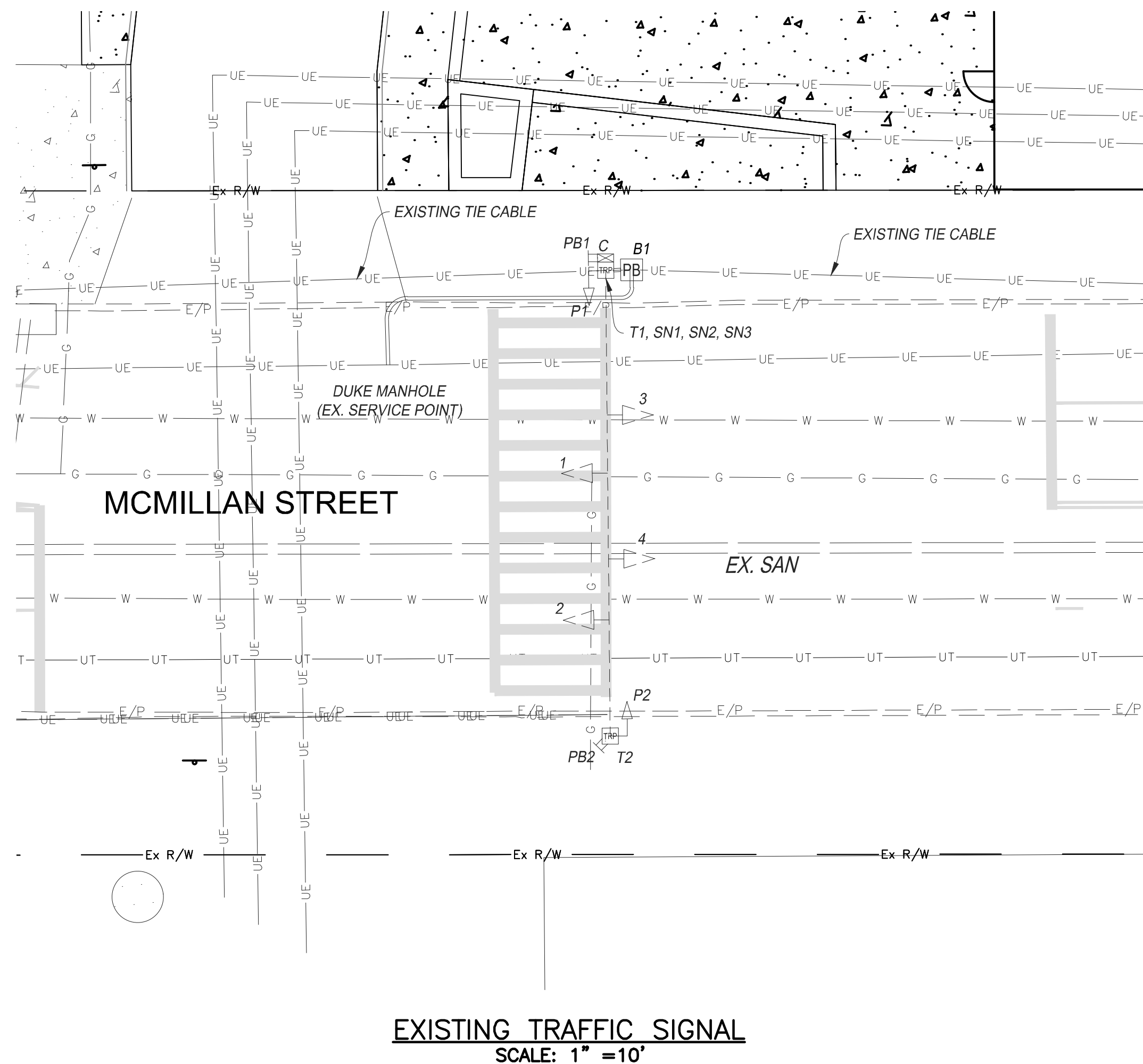
	REUSE	FOR DISPOSAL
LIGHT POLE		X
STRAIN POLE	X	
VEHICULAR SIGNAL HEADS	X	
PEDESTRIAN SIGNAL HEADS		X
CONTROLLER	X	
CABINET	X	
CABLES	X	
MESSENGER WIRE	X	

ITEMS FOR REMOVAL AT THE EXISTING KEMPER ROAD AND MCMILLAN STREET INTERSECTION TRAFFIC SIGNAL INSTALLATION ARE:

	REUSE	FOR DISPOSAL
PEDESTRIAN PEDESTAL		X
PEDESTRIAN SIGNAL HEADS		X
CABLES		X

NOTES

- SEE LIGHTING SHEETS 16-17 FOR DETAILS ON CONDUIT RUN. CONDUIT RUN SHALL RESERVE (1)-2" CONDUIT FOR INTERCONNECT (TIE CABLE) BETWEEN THE MCMILLAN CROSSING AND THE KEMPER INTERSECTION.
- CONTRACTOR SHALL REUSE EXISTING INTERCONNECT (TIE CABLE) BETWEEN THE CONTROLLER LOCATED AT THE MCMILLAN CROSSING AND THE CONTROLLER AT THE KEMPER INTERSECTION. LIKEWISE, CONTRACTOR SHALL REUSE EXISTING INTERCONNECT (TIE CABLE) BETWEEN THE CONTROLLER LOCATED AT THE MCMILLAN CROSSING AND THE CONTROLLER AT THE GILBERT INTERSECTION. CONTRACTOR SHALL CONNECT REUSED TIE CABLE TO THE EXISTING SECTIONALIZERS AT ALL SIGNAL LOCATIONS.
- NO ADJUSTMENT TO LOCATION OF POWER SERVICE. RECONNECTION TO EXISTING SERVICE POINT SHALL BE MADE.
- CONTRACTOR TO REMOVE EXISTING CONDUIT PER LIGHTING PLAN ON SHEETS 16-17.
- CONTRACTOR TO INSTALL NEW PULL BOXES FOR LIGHTING CIRCUIT PER LIGHTING PLANS ON SHEETS 16-17.
- CONTRACTOR TO REUSE MESSENGER WIRE AND SIGNAL CABLE WHERE POSSIBLE.



EXISTING EQUIPMENT INVENTORY

1, 2, 3, 4	TRAF. SIG. HD., 3 SECT., VERT., 12" RYG, LED	(REUSE)
P1	PEDESTRIAN SIGNAL, 1 SECT., 16" LED	(REMOVE)
P2	PEDESTRIAN SIGNAL, 1 SECT., 16" LED	(TO REMAIN)
PB1	PEDESTRIAN PUSHBUTTON W/ ASSOC. SIGNS	(REMOVE)
PB2	PEDESTRIAN PUSHBUTTON W/ ASSOC. SIGNS	(TO REMAIN)
T1	STEEL POLE, 9"x27", ANCHOR BASE	(REMOVE)
T2	STEEL POLE, 9"x28", ANCHOR BASE	(TO REMAIN)
B1	EXISTING PULL BOX, 18"x18", TYPE "B"	(TO REMAIN)
C	POLE MOUNTED TRAFFIC CONTROLLER	(REUSE)
SN1	EXISTING SIGN, "PUSH BUTTON FOR WALK LIGHT", WHITE	(REUSE)
SN2	EXISTING SIGN, "LOOK", YELLOW	(REUSE)
SN3	EXISTING SIGN, PARKING DESIGNATION, WHITE	(REMOVE)

PROPOSED EQUIPMENT INVENTORY

1, 2, 3, 4	TRAF. SIG. HD., 3 SECT., VERT., 12" RYG, LED	(RELOCATED)
P1	PEDESTRIAN SIGNAL, 1 SECT., 16" LED, CLAMSHELL MOUNTING	(NEW)
PB1	PEDESTRIAN PUSHBUTTON W/ ASSOC. SIGNS	(NEW)
T1	STEEL POLE, 9"x28", (27070), ANCHOR BASE	(NEW)
T3	PEDESTRIAN PEDESTAL 1045	(NEW)
C	POLE MOUNTED TRAFFIC CONTROLLER	(RELOCATED)
B1	EXISTING PULL BOX, 18"x18", TYPE "B"	(TO REMAIN)
SN1	EXISTING SIGN, "PUSH BUTTON FOR WALK LIGHT", WHITE	(RELOCATED)
SN2	EXISTING SIGN, "LOOK", YELLOW	(RELOCATED)

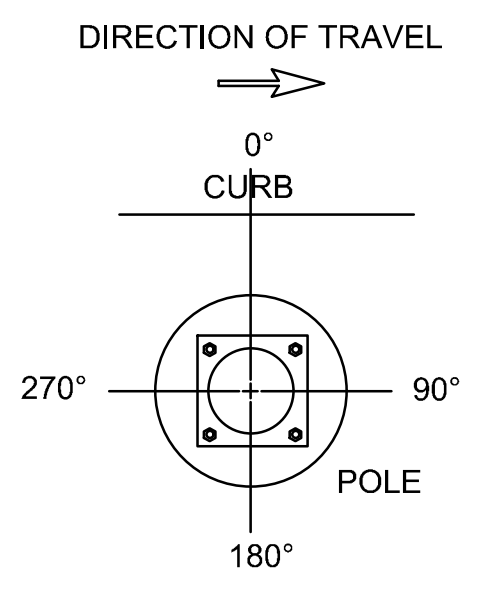
LEGEND

- ▶ TRAFFIC SIGNAL 3 UNIT HEAD
- ↑ PEDESTRIAN SIGNAL HEAD
- SIGNAL STRAIN POLE
- ⊠ POLE-MOUNTED TRAFFIC CONTROLLER
- ⊞ PEDESTRIAN PUSH BUTTON
- PEDESTAL SUPPORT

MATERIAL SCHEDULE																	
VEHICLE SIGNAL HEADS (REUSED)						VIDEO DETECTOR			PEDESTRIAN SIGNALS			CABLE ENTRANCE (ANGLE°)	SPAN WIRE ATTACH. (HEIGHT IN FT.)	HANDHOLE	CONTROLLER	DISCONNECT	
NO	1	2	3	4	5	6											
8 IN.																	
12 IN.	R	R	R	R													
	Y	Y	Y	Y													
	G	G	G	G													
POLE DATA																	
POLE NO.	DETAIL	GAUGE	SHAFT SIZE (INxFT)	FOUND. TYPE	PUSH BUTTONS						ANGLE OF ORIENTATION (0°) OR MOUNTING HEIGHT (FT.)	0°	24.43	180°	180°		
					PB1	PB2	P1	P2	P3	P4						P5	P6
T1	27070	0	9x28	FDN-7													
T2	EXISTING		9x28	Ex.	Ex.												
T3	1045		4x10	FDN-25			270°			270°							



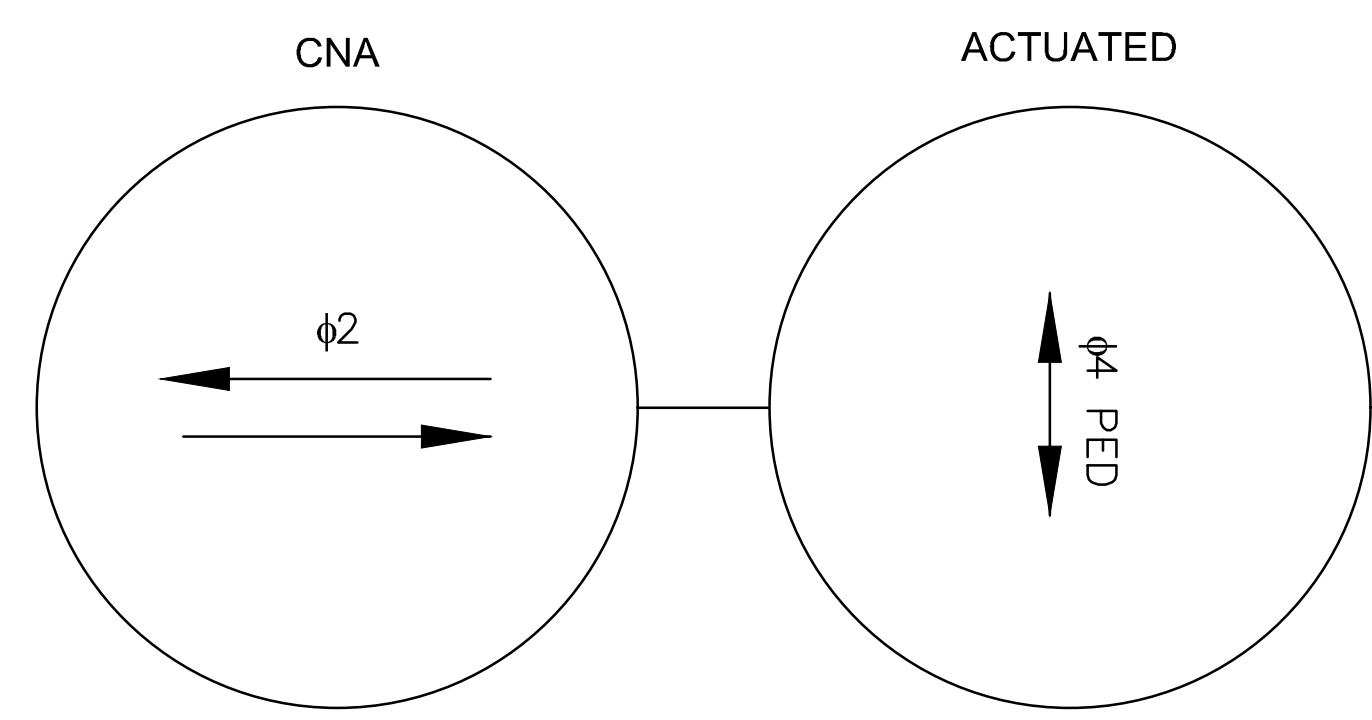
TYP. POLE ORIENTATION



CONTRACTOR TO REUSE VEHICULAR SIGNAL HEADS, POLE T2, AND SIGNAL EQUIPMENT ATTACHED TO POLE T2 AS INDICATED IN THE PLANS.

CABLE SCHEDULE			
CABLE NO.	CONNECTING DEVICES	CABLE TYPE	CABLE ROUTING
1	TRAFFIC SIGNAL 1 & 2	7C#14	TS2-TS1-T1-CONT. 75
2	TRAFFIC SIGNAL 3 & 4	7C#14	TS4-TS3-T1-CONT. 70
3	PEDESTRIAN SIGNAL P1	5C#14	P1-T3-B1-T1-CONT. 50
4	PEDESTRIAN SIGNAL P2	5C#14	P2-T2-T1-CONT. 90
5	PEDESTRIAN PUSHBUTTON PB1	2C#14	PB1-T3-B1-T1-CONT. 45
6	PEDESTRIAN PUSHBUTTON PB2	2C#14	PB2-T2-T1-CONT. 95
7	MESSENGER CABLE	5/16"	T2-T1 45
8	POWER CABLE	3C#6	B1-T1-CONT. 20

CONTRACTOR TO REUSE SIGNAL CABLE AND MESSENGER WIRE WHERE POSSIBLE.



PHASING DIAGRAM

FIELD WIRING HOOKUP CHART

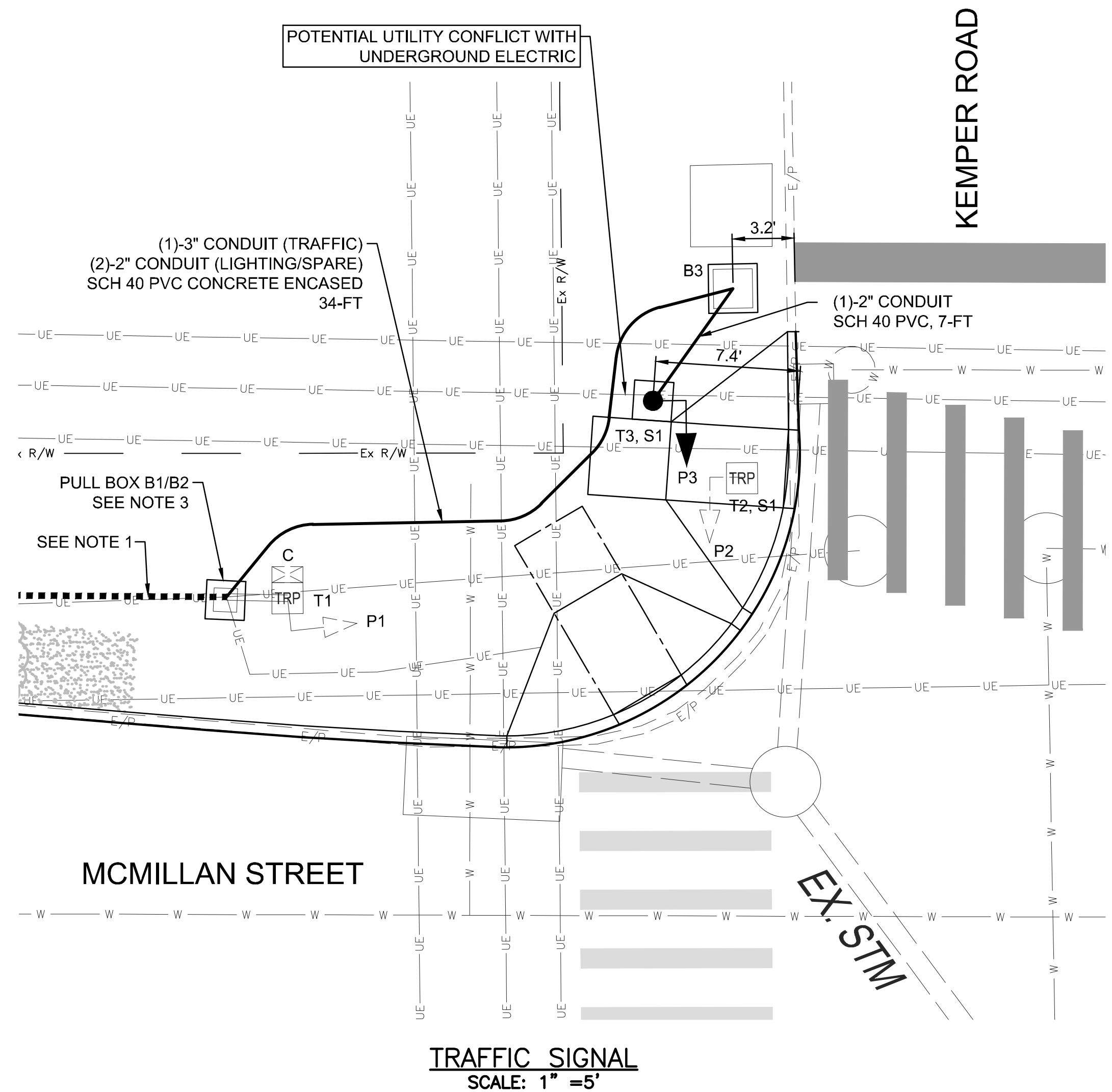
SIGNAL HEAD	INDICATION	FIELD TERMINAL	FLASH
1, 2, 3, 4 (EB & WB)	R	phi 2 R	Y
	Y	phi 2 Y	
	G	phi 2 G	
PEDESTRIAN MOVEMENTS			
P4 (CROSSING)	W	LS 4P G	OUT
	DW	LS 4P R	

LS = LOAD SWITCH

CALCULATED
TAH
CHECKED
MMN

PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS
TRAFFIC SIGNAL DETAILS - MCMILLAN STREET CROSSWALK





TRAFFIC SIGNAL
SCALE: 1" = 5'

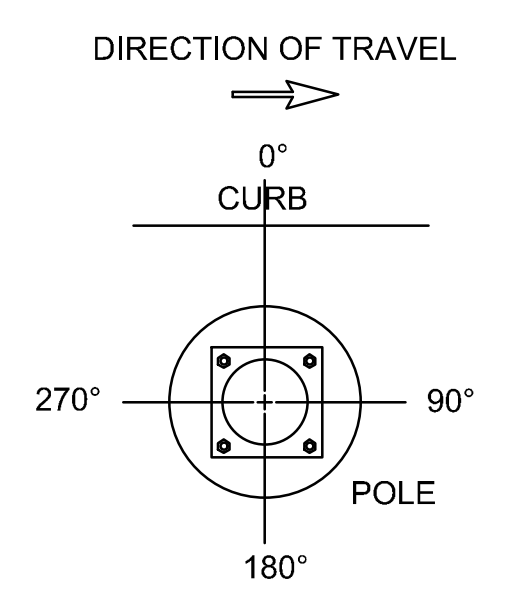
NOTES

1. SEE LIGHTING SHEETS 16-17 FOR DETAILS ON CONDUIT RUN. CONDUIT RUN SHALL RESERVE (1)-2" CONDUIT FOR INTERCONNECT (TIE CABLE) BETWEEN THE MCMILLAN CROSSING AND THE KEMPER INTERSECTION.
2. CONTRACTOR SHALL EXTEND TIE CABLE BETWEEN THE CONTROLLERS LOCATED AT THE MCMILLAN CROSSING AND THE KEMPER INTERSECTION.
3. CONTRACTOR SHALL REPLACE EXISTING PULL BOX WITH TYPE B PULL BOX PER THE LIGHTING PLANS ON SHEETS 16-17.
4. EXISTING SIGN "S1", "LOOK", YELLOW SHALL BE RELOCATED FROM THE EXISTING PEDESTRIAN SIGNAL PEDESTAL T2 TO THE PROPOSED PEDESTRIAN SIGNAL PEDESTAL T3.

MATERIAL SCHEDULE

VEHICLE SIGNAL HEADS						VIDEO DETECTOR	PEDESTRIAN SIGNALS						CABLE ENTRANCE (ANGLE°)	SPAN WIRE ATTACH. (HEIGHT IN FT.)	HANDHOLE	CONTROLLER	DISCONNECT
NO	1	2	3	4	5	6											
8 IN.																	
12 IN.																	
POLE NO.	POLE DATA				PUSH BUTTONS						ANGLE OF ORIENTATION (0°) OR MOUNTING HEIGHT (FT.)						
	DETAIL	GAUGE	SHAFT SIZE (INxFT)	FOUND. TYPE	P1	P2	P3	P4	P5	P6							
T3	1045		4x10	FDN-25									0°				

TYP. POLE ORIENTATION



EQUIPMENT INVENTORY

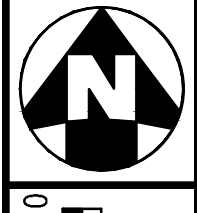
EQUIPMENT	DESCRIPTION	STATUS
B1	EXISTING PULL BOX	(REMOVED PER LIGHTING)
P1	PED. SIG., 1 SECT., 16" LED	(TO REMAIN)
C	POLE MOUNTED CONTROLLER	(TO REMAIN)
T1	STEEL POLE, ANCH. BASE, "LT" TYPE, 9"x27"	(TO REMAIN)
T2	PEDESTRIAN SIGNAL PEDESTAL	(REMOVE)
P2	PED. SIG., 1 SECT., 16" LED	(REMOVE)
S1	EXISTING SIGN, "LOOK", YELLOW	(RELOCATED)
T3	PEDESTRIAN SIGNAL PEDESTAL 1045	(NEW)
P3	PEDESTRIAN SIGNAL, 1 SECT., 16" LED CLAMSHELL MOUNTING	(NEW)
B2	PULL BOX, TYPE B	(NEW PER LIGHTING)
B3	TYPE C PULL BOX	(NEW)

LEGEND

- ↑ PEDESTRIAN SIGNAL HEAD
- TRAFFIC PULL BOX
- PEDESTAL SUPPORT

CABLE SCHEDULE

CABLE NO.	CONNECTING DEVICES	CABLE TYPE	CABLE ROUTING	
1	PEDESTRIAN SIGNAL P3	7C#14	T3-B3-B2-T1-C	78



PARAMOUNT LAUNCH STREETSCAPE IMPROVEMENTS
 TRAFFIC SIGNAL PLAN - MCMILLAN STREET AT KEMPER ROAD

