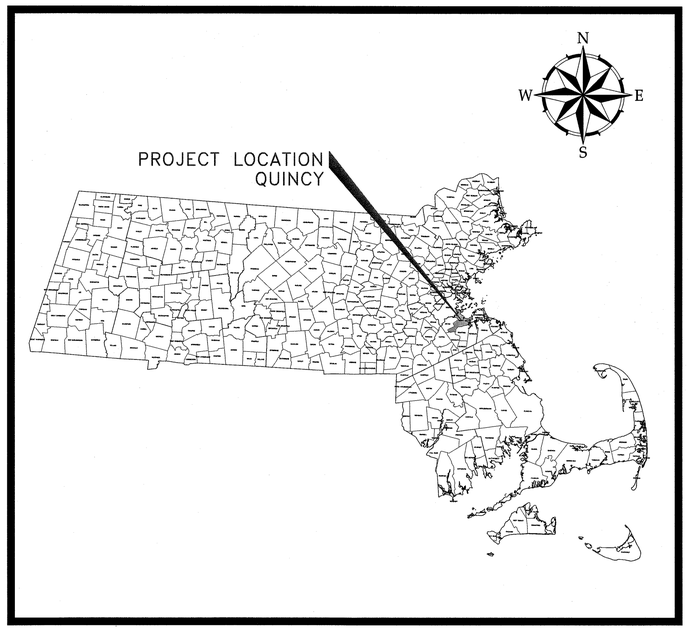
CITY OF QUINCY, MASSACHUSETTS

WEST OF CHESTNUT SURFACE IMPROVEMENT PROJECT



PROJECT LOCATION MAP

NOT TO SCALE

Mayor: Thomas P. Koch

Planning and Community Development Director: James J. Fatseas

Purchasing Agent: Kathryn R. Hobin

APRIL 2016

WOODARD & CURRAN

980 WASHINGTON STREET, SUITE 325
DEDHAM, MASSACHUSETTS 02026
800-446-5518 | www.woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

W&C PROJECT NO. 229255.00

SOURCE: OLIVER: MASSGIS

SITE LOCATION MAP

SCALE: 1" = 300'

COMMONWEALTH OF MASSACHUSETTS
DAVID A. WHITE
CIVIL
No. 39880
REGISTERED PROFESSIONAL ENGINEER
4/18/16

ISSUED FOR BID

1 2 3 4 5 6

24x36 SHEET 1:1

GENERAL NOTES

GENERAL

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" 1-888-344-7233 (811) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS, STATE AND LOCAL REQUIREMENTS.
3. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE 6" INCHES LOAM AND SEED.
4. WORK WITHIN THE LOCAL RIGHTS-OF-WAY AND WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
5. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION NOR CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND/OR FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS OR PERMISSIONS.
6. CONTRACTOR SHALL SUBMIT A TRAFFIC MANAGEMENT PLAN TO THE ENGINEER AND THE CITY TRAFFIC MANAGEMENT DEPARTMENT FOR REVIEW AND COMMENT PRIOR TO CONSTRUCTION ACTIVITY.
7. TRAFFIC SIGNAGE (TEMPORARY AND PERMANENT) SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR ALL LOCAL RIGHTS OF WAY AND IN ACCORDANCE WITH TRAFFIC MANAGEMENT PLANS.
8. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
9. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, ODOR, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN. ALL STOCK PILES OF SUSPECT MATERIAL SHALL BE SEGREGATED FROM NON SUSPECT MATERIAL AND COVERED.
10. CONTRACTOR(S) SHALL PROVIDE THEIR HEALTH AND SAFETY PLAN TO ENGINEER & CITY DPW.
11. DAMAGE TO SURFACE FEATURES, SUBSURFACE FEATURES AND SUBSURFACE INFRASTRUCTURE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
12. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF-SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
13. CONTRACTOR IS REQUIRED TO BACKFILL TRENCHES OR SECURE WITH METAL PLATES DAILY AND PAVE ALL TRENCHES BY END OF DAY FRIDAY. NO OPEN TRENCHES SHALL BE LEFT UNATTENDED.
14. THE CONTRACTOR SHALL VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. THE CONTRACTOR SHALL ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND SHALL NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
15. METHODS AND MATERIALS USED IN THE CONSTRUCTION OF IMPROVEMENTS FOR THIS PROJECT SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION.
16. WASTE DISPOSAL: MATERIALS WHICH COULD BE A POTENTIAL SOURCE OF STORM WATER POLLUTION SUCH AS GASOLINE, DIESEL FUEL, HYDRAULIC OIL, ETC., SHALL BE STORED AT THE END OF EACH DAY IN A STORAGE TRAILER OR COVERED LOCATION OR TAKEN OFF-SITE AND PROPERLY DISPOSED OF. ALL TYPES OF WASTE GENERATED AT THIS SITE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH STATE LAW AND/OR REGULATIONS.
17. THE CONTRACTOR SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS, PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION. ALL WATER, GAS, SEWER, ELECTRIC AND OTHER UTILITIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING, WITH MATCHING MATERIALS, ANY PAVEMENT, WALKS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION.
19. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE.
20. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM "THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER." THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING A PROTECTIVE BARRIER AROUND THE SITE PRIOR TO AND MAINTAINED DURING CONSTRUCTION.
21. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE SITE PLANS AND CONSTRUCTION SPECIFICATIONS ISSUED BY THIS FIRM AND INCORPORATE SUBSEQUENT ISSUED PLAN REVISIONS. ANY DEVIATIONS FROM THESE DOCUMENTS SHALL REQUIRE NOTIFICATION TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF/OR CONSTRUCTION ANY CHANGE. WITHOUT NOTIFICATION TO THE ENGINEER, THE CONTRACTOR WILL BE WORKING AT HIS OR HER OWN RISK.
22. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE ADAMS HANCOCK GREEN PROJECT AND THE WEST OF CHESTNUT DEVELOPMENT PROJECT.

UTILITIES

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR IT'S REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION SHALL BE FURNISHED IN WRITING BY THE CONTRACTOR TO THE ENGINEER FOR THE RESOLUTION OF THE CONFLICT. THE CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET MANHOLE RIMS, INVERTS OF SEWERS, DRAINS, AND DITCHES TO MATCH EXISTING UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   - A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   - B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   - C. LANDSCAPE OR LOAM AND SEED AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
   - D. CATCH BASINS SHALL BE SET ONE INCH (1") BELOW SURROUNDING GRADE.
5. IMMEDIATELY PRIOR TO THE END OF CONSTRUCTION OR ACCEPTANCE BY THE OWNER, THE CONTRACTOR SHALL INSPECT ALL SEWER MANHOLES, CATCH BASINS AND DRAIN MANHOLES AND CLEAN & FLUSH AS NECESSARY.
6. ALL DRAINAGE INLETS WITHIN THE LIMIT OF WORK WITHIN 300 FEET DOWN GRADIENT SHALL RECEIVE SILT SACK INLET PROTECTION SEDIMENT CONTROL.
7. WATER FACILITIES:
   - A. ANY REPAIRS REQUIRED TO A DOMESTIC WATER FACILITY SHALL BE CONSISTENT WITH CURRENT AWWA SPECIFICATIONS AND THE CITY OF QUINCY SPECIFICATIONS.

LAYOUT AND MATERIALS

1. ANY EXISTING PROPERTY LINE MONUMENTATON DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR AT THE CONTRACTORS EXPENSE.
2. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO PROPOSED SIDEWALKS TO ENSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.
4. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL FIELD VERIFY LOCATION OF PROJECT FEATURES.
5. ALL CURBING SHALL BE VERTICAL GRANITE CURB (VGC) UNLESS OTHERWISE INDICATED ON THE PLANS.
6. CONTRACTOR SHALL RETRIEVE USED VERTICAL GRANITE CURB FROM A CITY OWNED STOCK AT THE INTERSECTION OF ROSS WAY AND PARKING WAY FOR USE AS "STACKED VGC".

DEMOLITION

1. CONTRACTOR SHALL DISPOSE OF EXISTING DEBRIS IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF MATERIALS UNCOVERED DURING ANY OR PART OF THE WORK APPEAR TO BE CONTAMINATED. ALL LOCAL, STATE, AND FEDERAL LAWS SHALL PREVAIL IN THE EVENT OF CONTAMINATED MATERIALS.
2. DRAINAGE STRUCTURE FRAMES, GRATES AND COVERS REMOVED SHALL BE DELIVERED TO THE QUINCY DPW YARD BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
3. ADDITIONAL VGC (NEW/REMOVED) NOT USED SHALL BE DELIVERED TO THE QUINCY DPW YARD AS DIRECTED

EROSION CONTROL

1. PRIOR TO STARTING ANY WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY THE QUINCY CONSERVATION AGENT AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE CONTRACT DOCUMENTS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES DAILY, REMOVE SEDIMENT THEREFROM ON A WEEKLY BASIS AND WITHIN TWELVE HOURS AFTER EACH STORM EVENT, AND DISPOSE OF SEDIMENTS IN AN UPLAND AREA SUCH THAT THEY DO NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FREQUENT MAINTENANCE OF SEDIMENT TRAPS AND FLOODING RESULTING FROM FAILED SEDIMENT TRAPS.
4. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
5. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
6. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND REMOVE SEDIMENT AND DEBRIS FROM ALL DRAINAGE SYSTEMS.
7. CONTRACTOR SHALL INSTALL PROTECTIVE MEASURES TO PREVENT DEBRIS OR SEDIMENT FROM ENTERING THE STORMWATER OR SANITARY SEWER SYSTEM.
8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTROL DUST AND TAKE ALL NECESSARY MEASURES TO ENSURE ALL ROADS ARE MAINTAINED IN A DUST FREE CONDITION AT ALL TIMES THROUGHOUT THE LIFE OF THE CONTRACT. REPETITIVE TREATMENTS SHOULD BE APPLIED AS NECESSARY.
9. PERMANENT VEGETATIVE COVER SHALL BE INSTALLED TO ALL DISTURBED AREAS THAT HAVE REACHED FINISH GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS.
10. AFTER THE CONSTRUCTION ACTIVITY IN ANY GIVEN AREA HAS PERMANENTLY CEASED. THE RECOMMENDED PERMANENT SEEDING DATES ARE APRIL 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 1.
11. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED TO ANY DISTURBED AREAS (INCLUDING SOIL STOCKPILE AREAS) THAT HAVE NOT YET REACHED FINISHED GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED, UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS. THE RECOMMENDED TEMPORARY SEEDING DATES ARE MARCH 1 TO JUNE 15 AND AUGUST 15 TO OCTOBER 1.
12. AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHOULD BE MULCHED IMMEDIATELY FOLLOWING SEEDING IN ADDITION TO AREAS WHICH CANNOT BE SEEDED WITHIN THE RECOMMENDED SEEDING DATES AND ANY SOIL STOCKPILE AREAS. TEMPORARY MULCHING SHOULD BE PERFORMED AS SOON AS POSSIBLE, BUT NOT MORE THAN FOURTEEN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS TEMPORARILY CEASED UNLESS THE ACTIVITY IS TO RESUME WITHIN TWENTY-ONE (21) DAYS. STRAW OR HAY MULCH, WOOD FIBER MULCH, AND HYDROMULCH ARE RECOMMENDED. THE MATERIALS USED IN MULCHING SHALL CONFORM TO THE REQUIREMENTS LISTED IN SECTION M6.04.0 OF THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES.
13. ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. WHERE EROSION IS OBSERVED, ADDITIONAL MULCH MUST BE APPLIED. IF NETTING IS USED, THE NET SHOULD BE INSPECTED AFTER RAINSTORMS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, THE NET MUST BE REINSTALLED AS NECESSARY AFTER REPAIRING DAMAGE TO SLOPE. INSPECTIONS SHOULD TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED. GRASS IS CONSIDERED TO BE FIRMLY ESTABLISHED AT A MINIMUM HEIGHT OF THREE (3) INCHES. ANY EXISTING OR PROPOSED CATCH BASINS THAT MAY BE SUBJECT TO SEDIMENTATION PROCESSES SHALL HAVE SILT SACKS INSTALLED TO PREVENT SEDIMENT FROM ENTERING THE PROPOSED STORM DRAINAGE SYSTEM PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED SITE. THE PROPER INLET PROTECTION DEVICES SHALL BE INSTALLED WHERE STORM DRAIN INLETS ARE TO BE MADE OPERATIONAL BEFORE PERMANENT STABILIZATION OF ANY DISTURBED DRAINAGE AREA.
14. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS AS CLOSELY AS POSSIBLE. AREAS DAMAGED DURING CONSTRUCTION SHALL BE RESODDED, RESEEDED, OR OTHERWISE RESTORED TO THEIR ORIGINAL STATE. TREES AND OTHER EXISTING VEGETATION SHALL BE RETAINED WHEREVER FEASIBLE.
15. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.

EXISTING CONDITIONS INFORMATION

1. BASE PLAN: PLANS ARE BASED ON INFORMATION OBTAINED FROM THE ADAMS GREEN PROJECT DESIGNERS, HOWARD STEIN & HUDSON (HSH) BASED ON SURVEY INFORMATION PROVIDED TO HSH BY A-PLUS CONSTRUCTION SERVICES. DRAWINGS FURTHER SUPPLEMENTED WITH HSH ADAMS GREEN DESIGN DRAWINGS AND WOODARD & CURRAN'S WEST OF CHESTNUT UTILITY ROADWAY INFRASTRUCTURE REPLACEMENT PROJECT DESIGN DRAWINGS.
2. VERTICAL DATUM BASED ON NAVD 1988, HORIZONTAL DATUM BASED ON MASSACHUSETTS STATE PLANE COORDINATE SYSTEM NAD 1983.
3. CONTRACTOR MAY CONDUCT TEST PITS TO VERIFY EXISTING CONDITIONS. TEST PITS CONDUCTED AT THE CONTRACTORS CONVENIENCE TO VERIFY EXISTING CONDITIONS SHALL BE AT THE CONTRACTORS EXPENSE AND SHALL BE APPROVED AND COORDINATED WITH THE CITY OF QUINCY'S DPW.

PERMITTING

1. CONTRACTOR SHALL PROVIDE A TRAFFIC MANAGEMENT PLAN FOR REVIEW AND APPROVAL BY THE CITY OF QUINCY'S TRAFFIC ENGINEER AND THE CITY'S AGENT 3 WEEKS PRIOR TO MOBILIZATION.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING LOCAL STREET OPENING PERMITS, BUT THE FEE WILL BE WAIVED.

TRAFFIC MANAGEMENT

1. CONTRACTOR SHALL COORDINATE ROAD CLOSURES WITH ALL EMERGENCY MANAGEMENT AND DPW AGENCIES 48 HOURS PRIOR TO CLOSURE.
2. CONTRACTOR SHALL PROVIDE ALL SIGNAGE, BARRICADES, CAUTION TAPE, CONES AND BARRELS REQUIRED TO FACILITATE A SAFE ROAD OR SIDEWALK CLOSURE.
3. PEDESTRIAN ACCESS SHALL BE MAINTAINED AND MANAGED DURING SIDEWALK AND CROSSWALK CLOSURES.

ADDITIONAL REQUIREMENTS

1. ACCESS TO ALL SIDE STREETS AND DRIVEWAYS SHALL BE MAINTAINED.
2. TREE BRANCHES SHALL NOT BE REMOVED BY EXCAVATING EQUIPMENT. ALL TRIMMING REQUIRED TO ALLOW ACCESS BY EXCAVATION EQUIPMENT SHALL BE PERFORMED BY A LICENSED ARBORIST.

AMERICANS WITH DISABILITIES ACT REQUIREMENTS

1. THE CONTRACTOR IS HEREBY NOTIFIED THAT THEY ARE ULTIMATELY RESPONSIBLE FOR CONSTRUCTING ALL PROJECT ELEMENTS IN STRICT COMPLIANCE WITH THE CURRENT AAB/ADA RULES. REGULATIONS AND STANDARDS.

ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE
ADJ.	ADJUSTABLE
AIP	ABANDON IN PLACE
ALUM.	ALUMINUM
APPROX.	APPROXIMATE
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
BIT.	BITUMINOUS
BLDG.	BUILDING
BOT	BOTTOM
C. to C.	CENTER TO CENTER
CB	CATCH BASIN
CC	CONCRETE CURB
CDF	CONTROL DENSITY FILL
CIPP	CURED-IN-PLACE-PIPE LINING
CITS	CLEAN, INSPECT, TEST, & SEAL
℄	CENTER LINE
CLDI	CEMENT LINED DUCTILE IRON
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CONT.	CONTINUOUS
CORR.	CORRUGATED
CR	CURB RETURN
CU	COPPER
CW	CROSS WALK
D	DRAIN
D.I.	DUCTILE IRON
DIA.	DIAMETER
ø	DIAMETER
DIAG.	DIAGONALLY
DMH	DRAIN MANHOLE
DYL	DOUBLE YELLOW PAVEMENT MARKING LINE
EA.	EACH
ELECT.	ELECTRICAL
ELEV. / EL.	ELEVATION
EX.	EXISTING
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FM	FORCE MAIN
FRP	FIBERGLASS REINFORCED PLASTIC
FT.	FOOT
FTG.	FITTING
G	GAS
GALV.	GALVANIZED
H	HEIGHT
HDPE	HIGH DENSITY POLYETHYLENE
HOR.	HORIZONTAL
I.D.	INSIDE DIAMETER
INV. / I	INVERT
L	LENGTH
LB	POUND
LW / L.O.W.	LIMIT OF WORK
MAX.	MAXIMUM
MECH.	MECHANICAL
MFG.	MANUFACTURERS
MH	MANHOLE
MIN.	MINIMUM
MWRA	MASSACHUSETTS WATER RESOURCE AUTHORITY
NOM.	NOMINAL
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
O.C.	ON CENTER
O.C.E.W.	ON CENTER EACH WAY
O.D.	OUTSIDE DIAMETER
ℙ	PROPERTY LINE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RRVGC	REMOVE AND RESET VERTICAL GRANITE CURB
R&S	REMOVE AND STORE
S	SEWER
S.S.	STAINLESS STEEL
SCH.	SCHEDULE
SECT.	SECTION
SF	SQUARE FEET
SHLDR.	SHOULDER
SHT.	SHEET
SQ.	SQUARE
SWL	SINGLE WHITE PAVEMENT MARKING LINE
TBM	TEMPORARY BENCH MARK
THK.	THICK
TYP.	TYPICAL
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE
VERT.	VERTICAL
VGC	VERTICAL GRANITE CURB
W	WATER
W/	WITH

SHEET INDEX

G-000	COVER SHEET
G-001	GENERAL NOTES, ABBREVIATIONS, LEGEND AND SHEET INDEX
C-100	EXISTING CONDITIONS PLAN
C-101	SITE PREPARATION PLAN
C-200	SURFACE RESTORATION AND MATERIALS PLAN
C-201	GRADING AND ROADWAY REALIGNMENT
C-300	PROJECT DETAILS 1
C-301	PROJECT DETAILS 2
E-001	ELECTRICAL LEGEND
E-101	ELECTRICAL SITE PLAN
E-801	ELECTRICAL DETAILS

LEGEND

ISSUED FOR BID

WOODARD & CURRAN
980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN INC. AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

COMMONWEALTH OF MASSACHUSETTS
DAVID A. WHITE
CIVIL
No. 39880
REGISTERED PROFESSIONAL ENGINEER
4/8/16

REV	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
229255-L&N.dwg

GENERAL NOTES, ABBREVIATIONS, LEGEND AND SHEET INDEX

CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 2 OF 11

G-001

\\wc\shared\projects\229255 Quincy MA - Surface Restoration Project\wip\Drawings\General\229255-L&N.dwg, Apr 08, 2016 - 2:28pm

30' 0 30' 60'

BAR SCALE
1" = 30'
CHECK GRAPHIC SCALE BEFORE USING

ISSUED FOR BID

24x36 SHEET 1:1

WOODARD & CURRAN
980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com
COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN INC. AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

COMMONWEALTH OF MASSACHUSETTS DAVID A. WHITE CIVIL No. 39880 REGISTERED PROFESSIONAL ENGINEER

REV	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
229255-C-100_C-202.DWG

EXISTING CONDITIONS PLAN

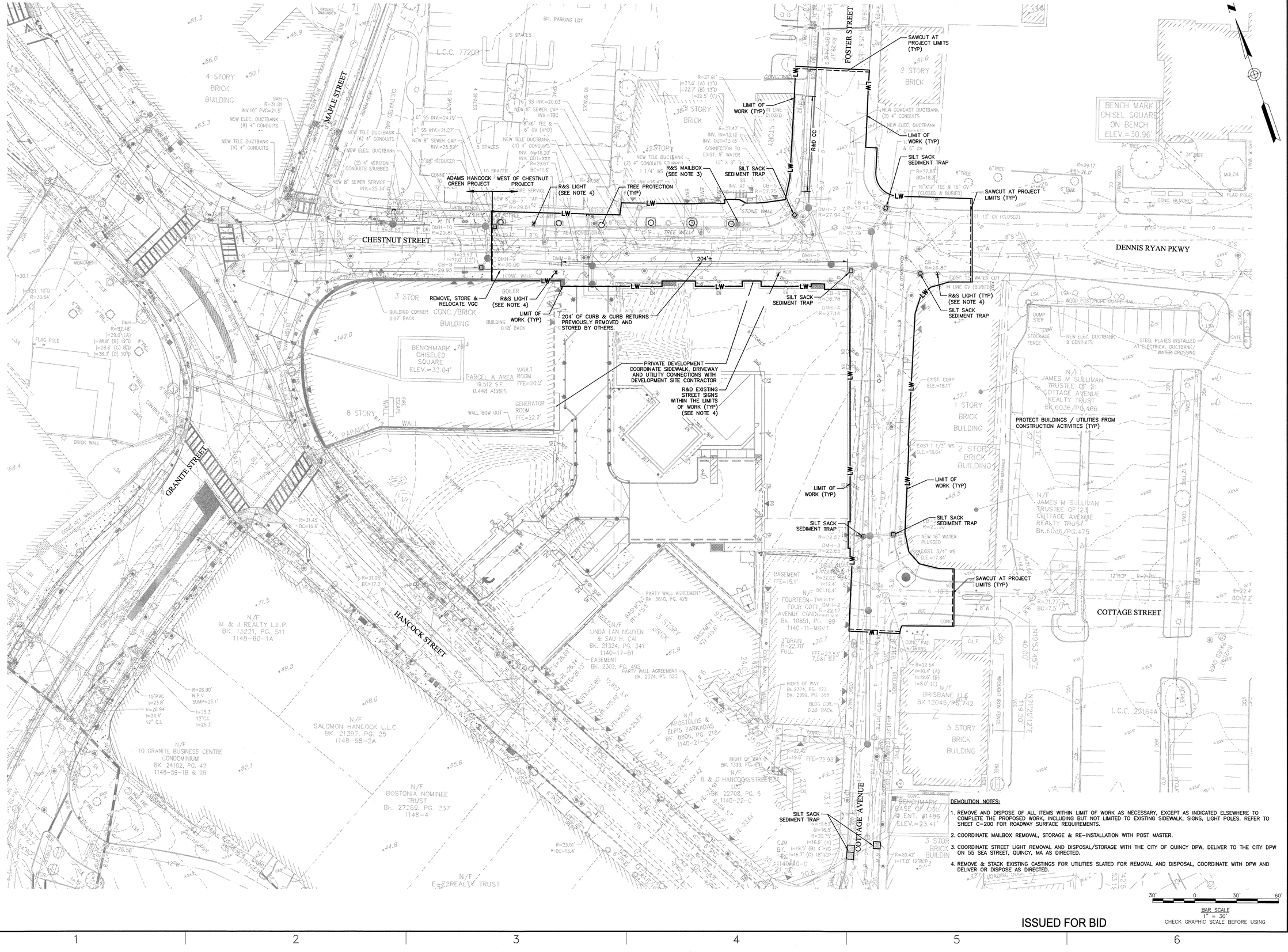
CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 3 OF 11

C-100

\\wc\shared\projects\229255 Quincy MA - Surface Restoration Project\wip\Drawings\Civil\229255-C-100_C-202.dwg, Apr 08, 2016 - 2:30pm



ISSUED FOR BID

980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5516 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

WOODARD & CURRAN

COMMONWEALTH OF MASSACHUSETTS
DAVID L. DOW
No. 39660
REGISTERED PROFESSIONAL ENGINEER
4/19/16

REV.	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
23255-C-100_C-202.DWG

SITE PREPARATION PLAN

CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

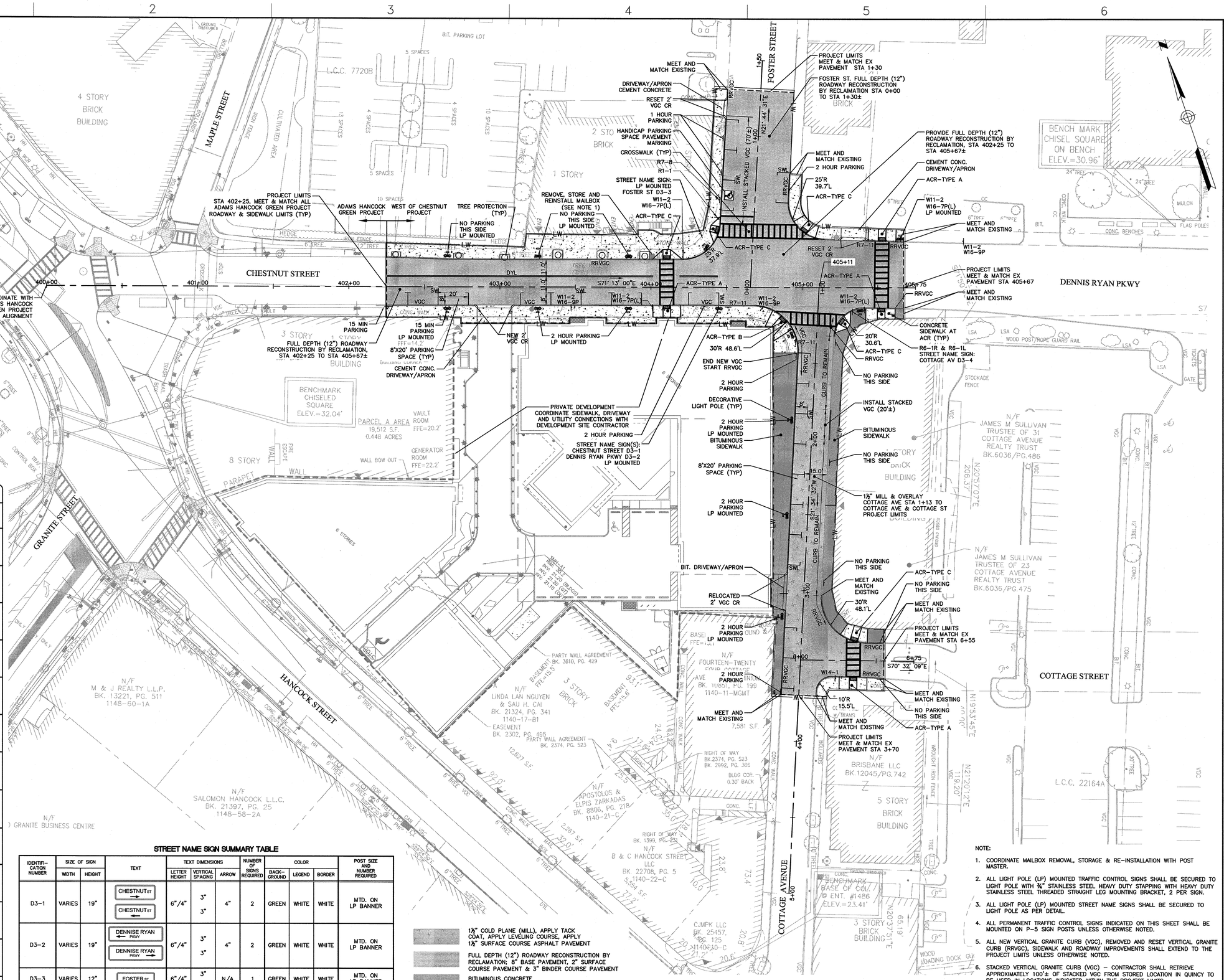
WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 4 OF 11

C-101

\\wc\shared\projects\23255 Quincy MA – Surface Restoration Project\wip\Drawings\dwl\23255-C-100_C-202.dwg, Apr 08, 2016 - 2:30pm

24x36 SHEET
1:1



TRAFFIC CONTROL SIGN SUMMARY TABLE

M.U.T.C.D. NUMBER	SPECIFICATION WIDTH	SPECIFICATION HEIGHT	DESC.	QUANITY
R1-1	30"	30"	STOP	1
W14-1	30"	30"	DEAD END	1
R7-11	12"	18"	NO PARKING HERE TO CORNER	3
R6-1R	36"	12"	ONE WAY	1
R6-1L	36"	12"	ONE WAY	1
R7-8	12"	18"	RESERVED PARKING	1
W11-2	30"	30"		7
W16-9P	24"	12"	AHEAD	3
W16-7P(L)	24"	12"		4
15 MIN PARKING	12"	18"	COORIDINATE WITH CITY FOR SIGN REQUIREMENTS	2
1 HOUR PARKING	12"	18"	COORIDINATE WITH CITY FOR SIGN REQUIREMENTS	2
2 HOUR PARKING	12"	18"	COORIDINATE WITH CITY FOR SIGN REQUIREMENTS	9
NO PARK THIS SIDE	12"	18"	COORIDINATE WITH CITY FOR SIGN REQUIREMENTS	8

ALL TRAFFIC CONTROL SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND MASS DOT SPECIFICATION 828.

STREET NAME SIGN SUMMARY TABLE

IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS LETTER HEIGHT	TEXT DIMENSIONS VERTICAL SPACING	TEXT DIMENSIONS ARROW	NUMBER OF SIGNS REQUIRED	COLOR BACK-GROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED
D3-1	VARIES	19"	CHESTNUT ST CHESTNUT ST	6"/4"	3" 3"	4"	2	GREEN	WHITE	WHITE	MTD. ON LP BANNER
D3-2	VARIES	19"	DENNISE RYAN PKWY DENNISE RYAN PKWY	6"/4"	3" 3"	4"	2	GREEN	WHITE	WHITE	MTD. ON LP BANNER
D3-3	VARIES	12"	FOSTER ST	6"/4"	3" 3"	N/A	1	GREEN	WHITE	WHITE	MTD. ON LP BANNER
D3-4	VARIES	12"	COTTAGE AV	6"/4"	3" 3"	N/A	1	GREEN	WHITE	WHITE	MTD. ON P-5

ALL STREET NAME SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND MASS DOT SPECIFICATION 828.

NOTE:

1. COORDINATE MAILBOX REMOVAL, STORAGE & RE-INSTALLATION WITH POST MASTER.
2. ALL LIGHT POLE (LP) MOUNTED TRAFFIC CONTROL SIGNS SHALL BE SECURED TO LIGHT POLE WITH ¾" STAINLESS STEEL HEAVY DUTY STAPPING WITH HEAVY DUTY STAINLESS STEEL THREADED STRAIGHT LEG MOUNTING BRACKET, 2 PER SIGN.
3. ALL LIGHT POLE (LP) MOUNTED STREET NAME SIGNS SHALL BE SECURED TO LIGHT POLE AS PER DETAIL.
4. ALL PERMANENT TRAFFIC CONTROL SIGNS INDICATED ON THIS SHEET SHALL BE MOUNTED ON P-5 SIGN POSTS UNLESS OTHERWISE NOTED.
5. ALL NEW VERTICAL GRANITE CURB (VGC), REMOVED AND RESET VERTICAL GRANITE CURB (RRVGC), SIDEWALK AND ROADWAY IMPROVEMENTS SHALL EXTEND TO THE PROJECT LIMITS UNLESS OTHERWISE NOTED.
6. STACKED VERTICAL GRANITE CURB (VGC) – CONTRACTOR SHALL RETRIEVE APPROXIMATELY 100'± OF STACKED VGC FROM STORED LOCATION IN QUINCY TO BE USED IN LOCATIONS INDICATED WITHIN THE PROJECT LIMITS.

30' 0 30' 60'
BAR SCALE
1" = 30'
CHECK GRAPHIC SCALE BEFORE USING

ISSUED FOR BID

980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5516 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

COMMONWEALTH OF MASSACHUSETTS
DAVID A. WISE
CIVIL
No. 38980
REGISTERED PROFESSIONAL ENGINEER
4/19/16

REV	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
229255-C-100_C-202.DWG

SURFACE RESTORATION & MATERIALS

CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 5 OF 11

C-200

\\wc\shared\projects\229255 Quincy MA - Surface Restoration Project\wip\Drawings\civil\229255-C-100_C-202.dwg, Apr 08, 2016 - 3:18pm

24x36 SHEET
1:1

980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com

COMMITTER & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

COMMONWEALTH OF MASSACHUSETTS
DAVID A. WHITE
No. 39860
REGISTERED PROFESSIONAL ENGINEER

REV	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
229255-C-100_C-202.DWG

GRADING AND ROADWAY ALIGNMENT PLAN

CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 6 OF 11

C-201

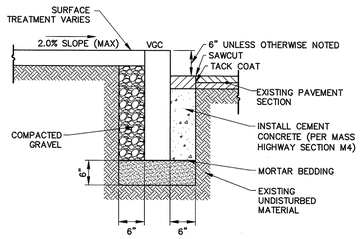
NOTE:

1. HOLD EXISTING GRADES AT ALL EXISTING BUILDING ENTRANCES.
2. ALL CASTINGS, DRAINAGE, SEWER, ELECTRICAL, HANDHOLES SHALL BE RAISED TO FINAL GRADE AFTER PLACEMENT OF BINDER.
3. ALL CATCH BASIN FRAMES SHALL BE SET 1" (ONE INCH) BELOW SURROUNDING PAVEMENT. ALL OTHER CASTING SHALL BE SET FLUSH WITH FINAL PAVEMENT.

30' 0 30' 60'
BAR SCALE
1" = 30'
CHECK GRAPHIC SCALE BEFORE USING

ISSUED FOR BID

\\We\shared\projects\229255 Quincy MA - Surface Restoration Project\wip\Drawings\Civil\229255-C-100_C-202.dwg, Apr 08, 2016 - 3:18pm

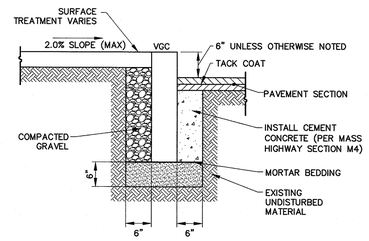


NOTE:

1. THIS PROCEDURE IS APPLICABLE ONLY IF CURB IS TO BE SET AFTER BASE AND/OR BINDER ARE IN PLACE, OR SET IN EXISTING PAVEMENT.
2. SAWCUT NEAT LINE 6" FROM CURB LINE AND REMOVE BINDER, BASE AND GRAVEL, REPLACE WITH CEMENT CONCRETE.
3. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE MASS HIGHWAY STANDARD SPECIFICATIONS MAY BE USED; ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.
4. PAYMENT PER FOOT OF CURB IS INCLUSIVE OF ALL ITEMS OF WORK REQUIRED TO COMPLETE PROPER INSTALLATION OF THE CURB.

VERTICAL GRANITE CURB TYPE (VGC) (INSTALLATION IN EXISTING PAVEMENT)

NOT TO SCALE

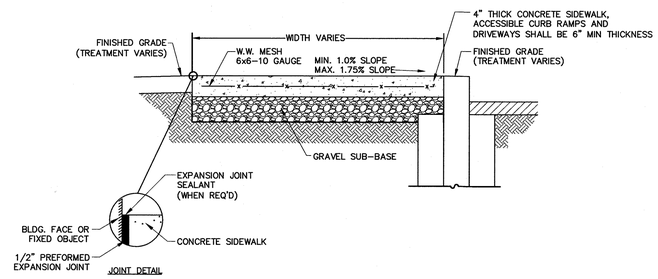


NOTE:

1. ANY DESIGNATED CEMENT CONCRETE THAT IS ACCEPTABLE UNDER SECTION M4 OF THE MASS HIGHWAY STANDARD SPECIFICATIONS MAY BE USED; ALL TEST REQUIREMENTS ARE WAIVED. HOT MIX ASPHALT SHALL NOT BE USED AS A SUBSTITUTE.

VERTICAL GRANITE CURB TYPE (VGC)

NOT TO SCALE



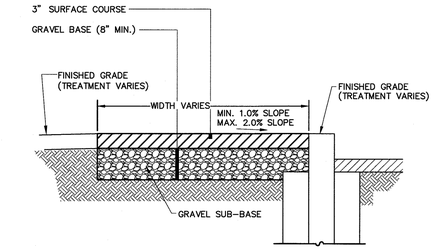
JOINT DETAIL

NOTES:

1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE–MOLDED JOINT FILLER.
2. PROVIDE CONTROL JOINTS AT 6' O.C.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
4. CEMENT CONCRETE SHALL BE 4000 PSI–TYPE II
5. EXISTING GRAVEL SUB–BASE TO REMAIN IN AREAS WHERE NO TRENCHING IS PROPOSED.
6. SEE ROADWAY/SIDEWALK RECONSTRUCTION DETAIL FOR GRAVEL APPLICATION IN AREAS OF PROPOSED TRENCHING.

TYPICAL CEMENT CONCRETE SIDEWALK

NOT TO SCALE

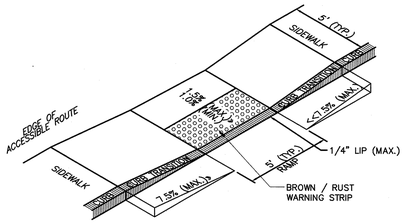


NOTES:

1. EXISTING GRAVEL SUB–BASE TO REMAIN IN AREAS WHERE NO TRENCHING IS PROPOSED.
2. SEE ROADWAY/SIDEWALK RECONSTRUCTION DETAIL FOR GRAVEL APPLICATION IN AREAS OF PROPOSED TRENCHING.

TYPICAL BITUMINOUS CONCRETE SIDEWALK

NOT TO SCALE

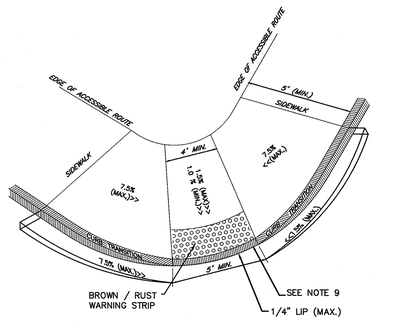


ACCESSIBLE CURB RAMP NOTES:

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5% (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.)
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. BASE OF RAMP SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE ALL CURBING AT RAMP (OTHER THAN VERTICAL CURBING, WHICH SHALL BE SET FLUSH) WHERE IT ABUTS ROADWAY.
10. ALL PORTIONS OF RAMP SHALL BE 6" CEMENT CONCRETE WITH WW MESH REINFORCEMENT, SEE CONCRETE SIDEWALK DETAIL.

ACCESSIBLE CURB RAMP (ACR) – TYPE 'A'

NOT TO SCALE

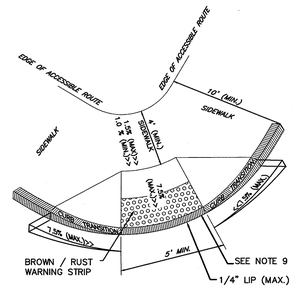


NOTE:

1. ACCESSIBLE CURB RAMP NOTES PROVIDED UNDER "ACCESSIBLE CURB RAMP – TYPE 'A' DETAIL ON THIS SHEET ARE APPLICABLE.

ACCESSIBLE CURB RAMP (ACR) – TYPE 'B'

NOT TO SCALE

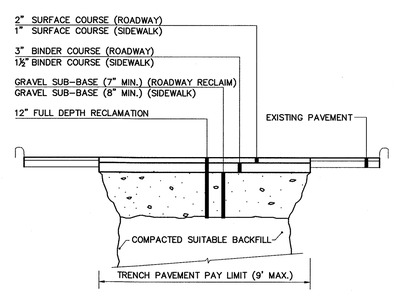


NOTE:

1. ACCESSIBLE CURB RAMP NOTES PROVIDED UNDER "ACCESSIBLE CURB RAMP – TYPE 'A' DETAIL ON THIS SHEET ARE APPLICABLE.

ACCESSIBLE CURB RAMP (ACR) – TYPE 'C'

NOT TO SCALE

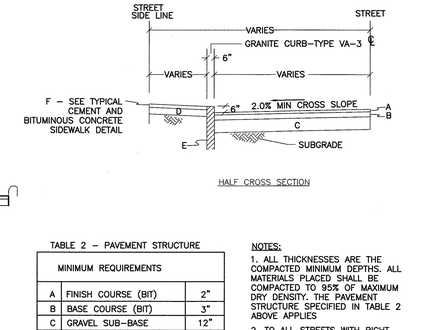


NOTES:

1. MAX. TRENCH PAVEMENT WIDTH PAY LIMIT IS 5 FEET.
2. MAX. MANHOLE REPLACEMENT PAVEMENT PAY LIMIT IS 10' X 10'.
3. DEPTH OF PAVEMENT COURSES TO BE ADJUSTED TO MEET EXISTING.

TYPICAL BITUMINOUS PAVEMENT REPAIR

NOT TO SCALE



HALF CROSS SECTION

TABLE 2 – PAVEMENT STRUCTURE

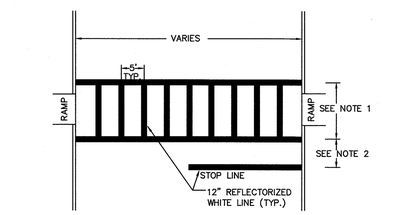
MINIMUM REQUIREMENTS		
A	FINISH COURSE (BIT)	2"
B	BASE COURSE (BIT)	3"
C	GRAVEL SUB–BASE	12"
D	GRAVEL SUB–BASE	8"
E	VA3 GRANITE CURB	19"–21"
F	CEMENT CONCRETE SIDEWALK	4"

NOTES:

1. ALL THICKNESSES ARE THE COMPACTED MINIMUM DEPTHS. ALL MATERIALS PLACED SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY. THE PAVEMENT STRUCTURE SPECIFIED IN TABLE 2 ABOVE APPLIES
2. TO ALL STREETS WITH RIGHT OF WAY WIDTHS OF UP TO 50 FEET. ITEMS C & H ABOVE COULD BE GREATER THAN THE SPECIFIED DEPTH DEPENDING ON THE SUBGRADE CONDITIONS.
3. SEE SPECIFICATION SECTIONS 02130 AND SECTION 02460 FOR ASPHALT MILLING AND ASPHALT SURFACE REQUIREMENTS.

ROADWAY/SIDEWALK RECONSTRUCTION

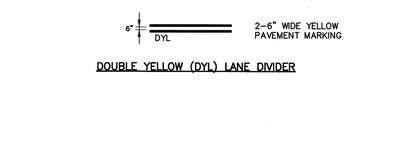
NOT TO SCALE
SOURCE: CITY OF QUINCY



NOTE:

1. CROSSWALK SHALL BE 10' WIDE UNLESS NOTED OTHERWISE ON THE PLANS.
2. DISTANCE FROM STOP LINE SHALL BE 4' UNLESS OTHERWISE INDICATED PLANS.
3. CROSSWALK & STOPLINE PAVEMENT MARKINGS FOR USE AS TEMPORARY PAVEMENT MARKING (NONE REFLECTORIZED PAINT).
4. PERMANENT USE (THERMOPLASTIC) SHALL BE USED AS SPECIFIED UNDER MASS DOT STANDARD SPECIFICATIONS.

CROSSWALK AND STOPLINE

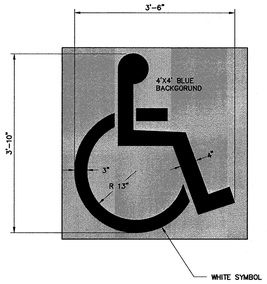


DOUBLE YELLOW (DYL) LANE DIVIDER

ON STREET PARALLEL PARKING SPACE

PAVEMENT MARKING

NOT TO SCALE

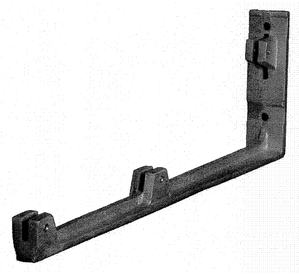


NOTES:

1. HANDI–CAP PAVEMENT MARKING SYMBOL SHALL BE 90MIL PREFORMED HEAT APPLIED THERMOPLASTIC SHEET.
2. APPLIED PER MANUFACTURES RECOMMENDATION.

HANDICAP PAVEMENT MARKING SYMBOL

NOT TO SCALE

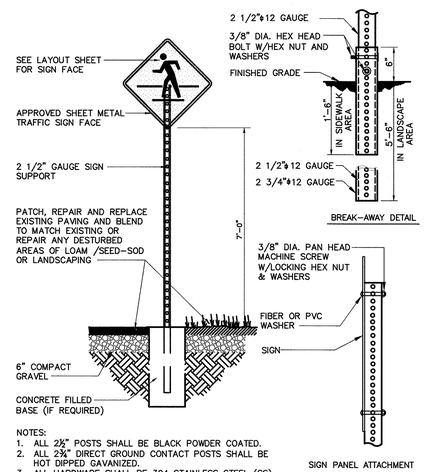


NOTES:

1. ALL SIGN BRACKETS SHALL BE HI TENSILE STRENGTH CAST ALUMINUM, MINIMUM 21" IN LENGTH, 6" IN HEIGHT.
2. BRACKET SHALL BE MOUNTED TO POLE WITH ALL STAINLESS STEEL STRAPPING SYSTEM, MIN. 2 STRAPS PER BRACKET.
3. SIGN MOUNTED TO BRACKET WITH STAINLESS STEEL SET SCREWS, 3 PER SIGN.
4. MINIMUM HEIGHT OF SIGN ABOVE GROUND SURFACE SHALL BE 10'.

LIGHT POLE MOUNTED STREET NAME SIGN MOUNTING BRACKET

NOT TO SCALE



NOTES:

1. ALL 2½" POSTS SHALL BE BLACK POWDER COATED.
2. ALL 2¾" DIRECT GROUND CONTACT POSTS SHALL BE HOT DIPPED GAVANIZED.
3. ALL HARDWARE SHALL BE 304 STAINLESS STEEL (SS).
4. ALL SIGN POSTS SHALL BE SQUARE CHANNEL IN ACCORDANCE MASS DOT SPECIFICATION 840

TRAFFIC SIGN POST (P–5)

NOT TO SCALE

ISSUED FOR BID

980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN INC. AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

WOODARD & CURRAN

COMMONWEALTH OF MASSACHUSETTS
DAVID A. WHITE
CIVIL
No. 38860
REGISTERED PROFESSIONAL ENGINEER

REV.	DESCRIPTION	DATE

DESIGNED BY:
DRAWN BY:
CHECKED BY:
229255-DETAILSDWG

PROJECT DETAILS 1

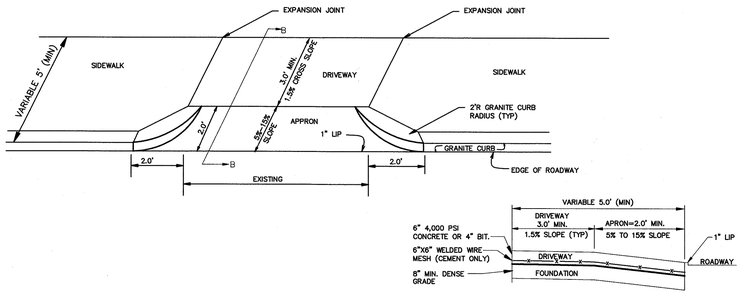
CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 7 OF 11

C-300

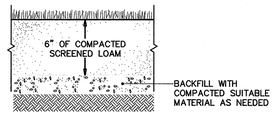
\\wc\stores\Projects\229255 Quincy MA - Surface Restoration Project\wip\Drawings\Civil\229255-Details.dwg, Apr 08, 2016 - 2:32pm



SECTION B-B

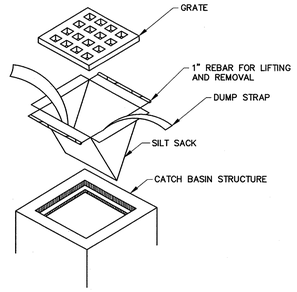
TYPICAL BITUMINOUS / CEMENT CONCRETE DRIVEWAY/APPRON

NOT TO SCALE



LOAM & SEED

NOT TO SCALE

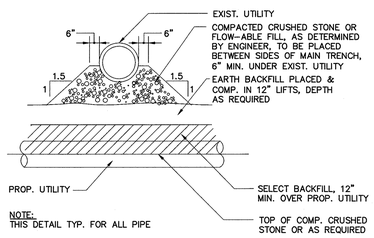


NOTE:

1. INSTALL SILTSACK PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. EMPTY OR REMOVE SEDIMENT FROM SILTSACK WHEN RESTRAINT CORD IS NO LONGER VISIBLE. CLEAN, RINSE, AND REPLACE AS NEEDED.
2. SILT SACKS TO BE INSTALLED DURING CONSTRUCTION OPERATIONS WHEN THE POTENTIAL FOR SEDIMENT TO ENTER EXISTING & PROPOSED BASINS EXISTS.

SILT SACK INLET PROTECTION

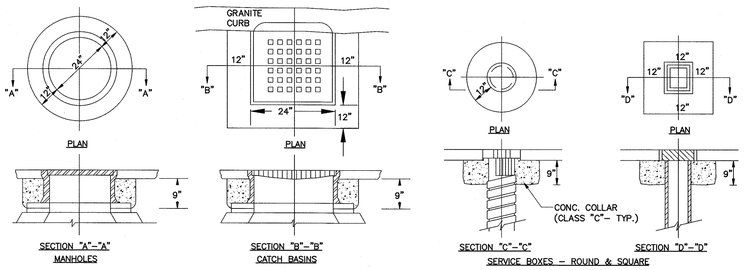
NOT TO SCALE



NOTE:
THIS DETAIL TYP. FOR ALL PIPE

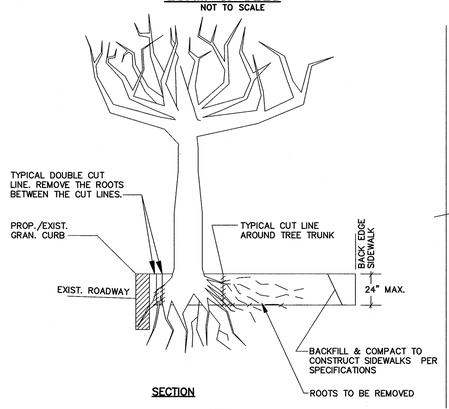
UTILITY CROSSING

NOT TO SCALE
SOURCE: CITY OF QUINCY



CONCRETE COLLARS

NOT TO SCALE
SOURCE: CITY OF QUINCY

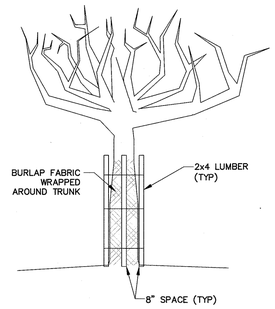


NOTES:

1. LOCATE THE CUT LINES AS CLOSE TO THE CURB LINE AS POSSIBLE.
2. UNLESS DIRECTED BY THE ENGINEER, ALL EXCAVATION RELATED TO THE ROOT SYSTEM AND STUMP REMOVAL SHALL NOT BE OUTSIDE THE SIDEWALK LIMITS.
3. ALL ROOTS WITHIN 24 INCH DEPTH AND THE SIDEWALK LIMITS SHALL BE REMOVED.

TREE ROOT SYSTEM REMOVAL

(NOT TO SCALE)
SOURCE: CITY OF QUINCY



TREE PROTECTION

(NOT TO SCALE)

ISSUED FOR BID

980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN, INC. AND ITS CLIENT. THIS DOCUMENT WAS PREPARED FOR THE SPECIFIC PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF WOODARD & CURRAN, INC. © 2016 WOODARD & CURRAN, INC. ALL RIGHTS RESERVED.

COMMONWEALTH OF MASSACHUSETTS
DAVID A. WHITE
CIVIL
No. 37980
REGISTERED PROFESSIONAL ENGINEER

REV.	DESCRIPTION	DATE
	DESIGNED BY:	
	DRAWN BY:	
	CHECKED BY: 29925-DEMLSWG	

PROJECT DETAILS 2

CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.:	228918.00
DATE:	APRIL 2016
SCALE:	AS NOTED
SHEET:	8 OF 11

C-301

24x36 SHEET
1:1

\\ws\shared\Projects\29255 Quincy MA - Surface Restoration Project\wip\Drawings\dwf\29255-Details.dwg, Apr 08, 2016 - 2:32pm

GENERAL

- P1-## — HOME RUN. ARROWS INDICATE NUMBER OF CIRCUITS, CROSS LINES INDICATE NUMBER OF WIRES, OTHER THAN TWO (2) PLUS BOND, WIRE SIZE NOT SHOWN INDICATES #12AWG MIN.
- INDICATES CIRCUIT NUMBER
- PANEL DESIGNATION
- WIRING IN RACEWAY
- WIRING IN RACEWAY CONCEALED UNDERGROUND OR UNDERSLAB, MINIMUM 3/4"C
- UG — WIRING IN RACEWAY CONCEALED UNDERGROUND, MINIMUM 3/4"C
- 3/C #nn W/GND
- EquipNo-P — CONDUIT AND CABLE ID TAG
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- CONDUIT STUB
- EY CONDUIT SEAL
- FLEXIBLE NON-METALLIC CONDUIT
- PANELBOARD
- CP — CONTROL PANEL
- ATC — AUTOMATIC TEMPERATURE CONTROL PANEL
- ISBP — INTRINSIC SAFETY BARRIER PANEL
- POWER COMPANY METER
- HS — LOCAL SELECTOR SWITCH
  H/O/A — HAND/OFF/AUTO
  H/O/R — HAND/OFF/REMOTE
  L/O/R — LOCAL/OFF/REMOTE
- PUSHBUTTON STATION, WITH "EM" EMERGENCY
- J — JUNCTION BOX
- MD — MOTORIZED DAMPER
- T — THERMOSTAT
- R — RELAY
- B T — DOOR BELL/BUZZER AND TRANSFORMER – MTD CL UP 7'-0" AFF
- K-# — EQUIPMENT TAGS
- EQUIP#
- X — KEYED NOTE TAG
- X — REVISION TRIANGLE
- BRACKET

POWER

- NON-FUSED SAFETY SWITCH
- F — FUSED SAFETY SWITCH
- NON-FUSED DISCONNECT/MAGNETIC MOTOR STARTER
- M — MANUAL MOTOR SWITCH (MOTOR RATED SWITCH), TOGGLE OPERATED, SINGLE PHASE. 1 OR 2 POLE AS REQUIRED
- CB 100A — ENCLOSED CIRCUIT BREAKER W/AMPERE RATING
- (M) — ELECTRIC MOTOR, NUMBER INDICATES HORSEPOWER RATING, "F" INDICATES FRACTIONAL LESS THAN 1/20HP OR 100W
- T — TRANSFORMER
- P — POWER POLE
- DUPLEX RECEPTACLE, NEMA 5-20R – MTD CL UP 24" OR AS NOTED."WP" WEATHER PROOF, "G" PROTECTED BY GFCI RECEPTACLE OR BREAKER UPSTREAM, "H" MOUNTED 0'-6" BELOW CEILING, "TV" MOUNT 7'-6" UP
- DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R – MTD CL UP 24" OR AS NOTED
- SINGLE RECEPTACLE, NEMA 5-20R – MTD CL UP 24" OR AS NOTED
- GFCI DUPLEX RECEPTACLE, NEMA 5-20R – MOUNTED CL UP 48" OR 6" ABOVE COUNTER
- DOUBLE DUPLEX GFCI RECEPTACLE, NEMA 5-20R – MOUNTED CL UP 48" OR 6" ABOVE COUNTER
- FLUSH FLOOR OUTLET, DUPLEX RECEPTACLE, NEMA 5-20R
- MULTI SERVICE FLUSH FLOOR BOX WITH DUPLEX RECEPTACLE AND PROVISIONS FOR DATA
- POWER RECEPTACLE, NEMA CONFIGURATION AS NOTED OR AS REQUIRED FOR EQUIPMENT SERVED.
- FLUSH CEILING MTD DEVICE BOXES, ONE W/ DUPLEX RCPT FOR PROJECTOR POWER AND ONE FOR DATA TO SERVE OH PROJECTOR. RUN ONE 1 1/2"C TO JBOX LOCATED AT FRONT OF ROOM FOR PROJECTOR CABLE PATHWAY. VERIFY FINAL LOCATION W/ OWNER PRIOR TO ROUGH IN.
- MULITI-OUTLET POWER STRIP, MOUNT 0'-6" ABOVE COUNTERTOP, RECEPTACLE SPACING AS NOTED.

MISCELLANEOUS

- B / 80.01 — DETAIL # / SECTION CALL OUT / SHEET #
- DETAIL TITLE — 1 / X-0X — DETAIL CALL OUT

LIGHTING

- 2x4 FLUORESCENT FIXTURE
- Ab — ASSOCIATED CONTROL DEVICE / FIXTURE TYPE (SEE LIGHT FIXTURE SCHEDULE)
- 1x4 FLUORESCENT FIXTURE
- 2x2 FLUORESCENT FIXTURE
- FIXTURE WIRED TO UNSWITCHED NORMAL CIRCUIT
- FIXTURE WIRED TO UNSWITCHED EMERGENCY CIRCUIT
- FIXTURE WIRED TO SWITCHED EMERGENCY CIRCUIT
- DOWN LIGHT
- FLUORESCENT STRIP
- WALL MOUNTED FIXTURES
- ab — POLE MOUNTED SITE LIGHTING FIXTURE / FIXTURE TYPE (SEE LIGHT FIXTURE SCHEDULE)
- FLOOD LIGHT
- EXIT SIGN, CEILING MOUNTED. ARROW INDICATES EGRESS DIRECTION. SHADING INDICATES SIGN FACE. NUMERAL INDICATES BATTERY UNIT CONNECTED
- EXIT SIGN, WALL MOUNTED 7'-6" AFF OR 0'-6" ABOVE DOOR. SHADING INDICATES SIGN FACE. NUMERAL INDICATES BATTERY UNIT CONNECTED TO.
- BATT — DUAL HEAD EMERGENCY LIGHT BATTERY PACK WITH NUMBER OF HEADS AS INDICATED – WALL MOUNTED MTD 7'-6" AFF. NUMERAL INDICATES BATTERY ID NUMBER.
- TANDEM EMERGENCY LIGHT BATTERY PACK & EXIT SIGN – WALL MOUNTED MTD 7'-6" AFF OR 0,-6" ABOVE DOOR. NUMERAL INDICATES BATTERY ID NUMBER.
- REMOTE EMERGENCY LIGHTING HEAD – WALL MOUNTED MTD 7'-6" AFF. NUMERAL INDICATES BATTERY UNIT CONNECTED TO.
- S — SINGLE POLE TOGGLE SWITCH – MTD CL UP 4'-0" AFF
- S_2 — DOUBLE POLE TOGGLE SWITCH – MTD CL UP 4'-0" AFF
- S_3 — 3-WAY TOGGLE SWITCH – MTD CL UP 4'-0" AFF
- S_4 — 4-WAY TOGGLE SWITCH – MTD CL UP 4'-0" AFF
- S_M — WALL MOUNTED OCCUPANCY SENSOR – MTD CL UP 4'-0" AFF
- S_P — TOGGLE SWITCH WITH PILOT LIGHT – MTD CL UP 4'-0" AFF
- S_D — DIMMER SWITCH – MTD CL UP 4'-0" AFF
- S_{LV} — LOW VOLTAGE SWITCH – MTD CL UP 4'-0" AFF
- o — OCCUPANCY SENSOR / o. INDICATES CONTROLLED FIXTURE
- PC — PHOTOCELL
- LC — LIGHTING CONTRACTOR
- MS — MOTION SENSOR

FIRE ALARM DIAGRAM SYMBOLS

- FACP — FIRE ALARM CONTROL PANEL
- FAA — FIRE ALARM ANNUNCIATOR
- FCPS — FIELD CHARGER POWER SUPPLY
- M — FIRE ALARM MASTER BOX
- K — KNOX BOX
- F — FIRE ALARM MANUAL PULL STATION – WALL MTD CL UP 4'-0"
- H L — FIRE ALARM AUDIBLE/VISIBLE NOTIFICATION APPLIANCE CANDELA (CD) POWER PER NFPA 72 OR AS NOTED – WALL MTD BOTTOM UP 80" AFF. "H" HORN, "V" VOICE.
- L — FIRE ALARM VISUAL NOTIFICATION APPLIANCE CANDELA (CD) POWER PER NFPA 72 OR AS NOTED – WALL MTD BOTTOM UP 80" AFF
- CEILING MOUNTED SMOKE DETECTOR
- CEILING MOUNTED HEAT DETECTOR
- DUCT SMOKE DETECTOR S=SUPPLY, R=RETURN
- FS — SPRINKLER SYSTEM FLOW SWITCH
- TS — SPRINKLER SYSTEM TAMPER SWITCH
- PS — SPRINKLER SYSTEM PRESSURE SWITCH
- DH — FIRE ALARM SYSTEM MAGNETIC DOOR HOLDER
- Z — MONITOR MODULE
- C — CONTROL MODULE
- R — RELAY MODULE

COMMUNICATIONS

- TEL — TELEPHONE BACKBOARD
- WX — PROVISIONS FOR TELEPHONE OUTLET. TWO-GANG WALL BOX WITH ONE 1"C STUB TO ABOVE ACCESSIBLE CEILING – MTD CL UP SAME AS ASSOCIATED RECEPTACLE
  W-INDICATES WALL MOUNTED AT 60" AFF
  P-INDICATES PAYPHONE MOUNTED AT 4'-0" AFF
  X-INDCATES NUMBER OF JACKS, SINGLE BOX
- PROVISIONS FOR DATA OUTLET. TWO-GANG WALL BOX WITH ONE 1"C STUB TO ABOVE ACCESSIBLE CEILING – MTD CL UP SAME AS ASSOCIATED RECEPTACLE. SUBSCRIPTS AS NOTED ABOVE.
- 2D2T — PROVISIONS FOR TELEPHONE & DATA OUTLET. TWO-GANG WALL BOX WITH ONE 1"C STUB TO ABOVE ACCESSIBLE CEILING – MTD CL UP SAME AS ASSOCIATED RECEPTACLE. SUBSCRIPTS AS NOTED ABOVE.
- PROVISIONS FOR SCADA SYSTEM OUTLET. TWO-GANG WALL BOX WITH ONE 1"C STUB TO ABOVE ACCESSIBLE CEILING – MTD CL UP SAME AS ASSOCIATED RECEPTACLE
- CEILING MOUNTED TELEPHONE SYSTEM OUTLET
- CEILING MOUNTED DATA SYSTEM OUTLET
- CEILING MOUNTED VOICE & DATA OUTLET
- FLUSH TELEPHONE FLOOR OUTLET
- FLUSH DATA FLOOR OUTLET
- FLUSH VOICE & DATA FLOOR OUTLET
- TV — TELEVISION COAXIAL OUTLET. MOUNTED UP SAME AS ASSOCIATED RECEPTACLE

SECURITY

- SEC — SECURITY PANEL
- DS — DOOR INTRUSION SWITCH
- DE — ELECTRIC DOOR STRIKE
- CR — CARD READER
- KP — KEY PAD
- MOTION DETECTOR
- CAM — SECURITY CAMERA / PTZ = PAN/TILT/ZOOM

INTERCOM & PAGING SYSTEM

- S — CEILING MOUNTED SPEAKER
- PA — PAGING SYSTEM CONTROL PANEL
- HS — PAGING SYSTEM HANDSET

INSTRUMENTATION

- LS / XX — FIELD MOUNTED INSTRUMENT / INSTRUMENT IDENTIFICATION TYPE / INSTRUMENT LOOP #
- FS / XX — VENDER SUPPLIED INSTRUMENT

INSTRUMENT IDENTIFIER:

AE	ANALYSIS ELEMENT
AIT	ANALYSIS INDICATING TRANSMITTER
AT	ANALYSIS TRANSMITTER
DPS	DIFFERENTIAL PRESSURE SWITCH
FCV	FLOW CONTROL VALVE
FE	FLOW ELEMENT
FIT	FLOW INDICATING TRANSMITTER
FT	FLOW TRANSMITTER
FS	FLOW SWITCH
LE	LEVEL ELEMENT
LIT	LEVEL INDICATING TRANSMITTER
LT	LEVEL TRANSMITTER
LS	LEVEL SWITCH
LSH	LEVEL SWITCH HIGH
LSL	LEVEL SWITCH LOW
MOV	MOTOR OPERATED VALVE
PE	PRESSURE ELEMENT
PIT	PRESSURE INDICATING TRANSMITTER
PT	PRESSURE TRANSMITTER
PS	PRESSURE SWITCH
SV	SOLENOID VALVE
TE	TEMPERATURE ELEMENT
TIT	TEMPERATURE INDICATING TRANSMITTER
TT	TEMPERATURE TRANSMITTER
ZS	PROXIMITY SWITCH

MISC TERMINALS

- ARROW, SMALL
- ARROW, LARGE
- ARROW, TRIANGULAR
- CONTINUE, SMALL
- CONTINUE, LARGE
- DOT, SMALL
- DOT, MEDIUM
- DOT, LARGE
- POLARITY SQUARE
- SCREW TERMINAL
- TERMINAL POINT, SMALL
- TERMINAL POINT, LARGE
- TERMINAL POINT, SQUARE
- SHIELD
- SHIELD W/TERMINAL POINT

ONE-LINE DIAGRAM SYMBOLS

- 52 / CB GCB1 / 800A E.O / 52 — HV VOLTAGE DRAWOUT TYPE POWER CIRCUIT BREAKER ELECTRICALLY OPERATED
  MV VOLTAGE DRAWOUT TYPE POWER CIRCUIT BREAKER WITH MANUAL CONTROL SWITCH
- AT AF / EO — LOW VOLTAGE CIRCUIT BREAKER
  AF – AMP FRAME
  AT – AMP TRIP
  EO – ELECTRICALLY OPERATED
- ST — ST – SHUNT TRIP
  GF – GROUND FAULT
  EO – ELECTRICALLY OPERATED
- DISCONNECT, ISOLATION OR SAFETY SWITCH
- FUSED DISCONNECT SWITCH
- 1 — MAGNETIC MOTOR STARTER. NUMERAL INDICATES NEMA SIZE FVNR UNLESS OTHERWISE NOTED.
  FVR – FULL VOLTAGE REVERSING
  RVAT – REDUCING VOLTAGE AUTO TRANSFORMER
  2S – TWO SPEED
  YD – WYE DELTA REDUCED VOLTAGE STARTER
- CAPACITOR
- VFD 11 — VFD = VARIABLE FREQUENCY DRIVE
  SS = SOLID STATE STARTER
  DC = DC VARIABLE DRIVE
  NUMERAL INDICATES AMP RATING
- OA — POWER TRANSFORMER
  OA – LIQUID TYPE SELF COOLED
  AA – DRY TYPE SELF COOLED
  FA – FAN COOLED
  CONNECTION
- 2 / 480/120 — POTENTIAL TRANSFORMER RATIO NUMBER REQUIRED
- 2 / 600/5 — CURRENT TRANSFORMER RATIO PHASE
- 5 — MOTOR, NUMERAL INDICATES HORSEPOWER
- X — GENERAL LOAD, NUMERAL INDICATES LOAD IN KVA
- GENERATOR
- N E L — ATS — ATS – AUTOMATIC TRANSFER SWITCH
  MTS – MANUAL TRANSFER SWITCH
- A — METER
  A – AMMETER
  V – VOLTMETER
  W – WATTMETER
  KWH – KILOWATT HOUR
  KVAR – KILOVAR METER
  VAR – VAR METER
  HZ – FREQUENCY METER
  PF – POWER FACTOR METER
- 3 — LINE OR LOAD REACTOR
  NUMERAL INDICATES %
  IMPENDENCE
- DPM — DIGITAL POWER MONITOR
- AS — METER TRANSFER SWITCH
  AS – AMMETER SWITCH
  VS – VOLTMETER SWITCH
- SPD — SPD = SURGE PROTECTION DEVICE
  ENDN = ETHERNET TO DEVICENET LINKING DEVICE
  DPS = DEVICENET POWER SUPPLY
- MEDIUM VOLTAGE CABLE TERMINATION
- DRAWOUT DEVICE
- LA — LIGHTNING ARRESTOR
- K — KEY INTERLOCK

GROUNDING

- G — DENOTES BARE COPPER GROUND CABLE. (SIZE 4/0 UNLESS OTHERWISE NOTED)
- DENOTES 3/4ø X 10'-0" LONG GROUND ROD. (10'-0" MINIMUM LENGTH)
- DENOTES EQUIPMENT BOLTED CONNECTION OR APPROVED EQUAL.
- DENOTED CADWELL EXOTHERMIC CONNECTION
- GROUND

CONTROL DIAGRAM SYMBOLS

NOTE: ALL CONTROL SYMBOLS ARE DRAWN ASSUMING DE-ENERGIZED CIRCUITS, EMPTY TANKS, UNPRESSURIZED LINES, ETC.

OPEN ON INCREASE	CLOSE ON INCREASE	
		PRESSURE SWITCH
		LEVEL SWITCH
		FLOW SWITCH
		TEMPERATURE SWITCH
NORMALLY CLOSED	NORMALLY OPEN	
		PUSH BUTTON
		INSTANTANEOUS CONTACT
		TIMED CLOSE CONTACT
		TIMED OPEN CONTACT
		LIMIT SWITCH

- H O A / XOO / OOX — SELECTOR SWITCH: QUANTITY OF ARROWS INDICATES NUMBER OF POSITIONS. XOO INDICATES UPPER CONTACT CLOSED IN LEFT POSITION AND OPEN IN CENTER AND RIGHT POSITIONS
- INTERNAL WIRING
- FIELD WIRING
- RELAY COIL

ABBREVIATIONS

A,AMP	AMPERES
AC	ALTERNATING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPT CAPACITY
AWG	AMERICAN WIRE GAUGE
BFG	BELOW FINISHED GRADE
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CL	CENTER LINE
CKT	CIRCUIT
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CT	CURRENT TRANSFORMER
CU	COPPER
E.C.	ELECTRICAL CONTRACTOR
EMT	ELECTRIC METALLIC TUBING
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FWE	FURNISHED WITH EQUIPMENT
G.C.	GENERAL CONTRACTOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
G,GND	GROUND
HP	HORSEPOWER
HZ	FREQUENCY IN CYCLES/SECOND
IG	ISOLATED GROUND
IMT	INTERMEDIATE METALLIC CONDUIT
JBOX	JUNCTION BOX
K	KILO
KCMIL	1000 CIRCULAR MILS
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
MCC	MOTOR CONTROL CENTER
MCB	MAIN CIRCUIT BREAKER
MFG	MANUFACTURER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTR	MOTOR
MV	MEDIUM VOLTAGE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NEUT	NEUTRAL
NO	NORMALLY OPEN
OL	OVERLOAD ELEMENT
PF	POWER FACTOR
PH	PHASE
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE
RGS	RIGID STEEL CONDUIT
RTD	RESISTANCE TEMPERATURE DETECTOR
SEC	SECONDARY
SS	STAINLESS STEEL
SV	SOLENOID VALVE
TEMP	TEMPERATURE
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UE	UNDERGROUND ELECTRIC
UG	UNDERGROUND
UPS	UNINTERRUPTED POWER SUPPLY
V	VOLTS
VA	VOLT-AMPERES
VAR	VOLT-AMPERE REACTIVE
W	WATT
WM	WATT METER
WP	WEATHER PROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

ISSUED FOR BID

980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

WOODARD & CURRAN

THE DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN INC. AND TO CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

COMMONWEALTH OF MASSACHUSETTS — ANDREW FITZPATRICK — ELECTRICAL — NO. 50761 — REGISTERED PROFESSIONAL ENGINEER — 10/31/17

REV	DESCRIPTION	DATE
	DESIGNED BY: JLH	
	DRAWN BY: JLH	
	CHECKED BY: KRM	
	228255-E-001.DWG	

ELECTRICAL LEGEND

CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

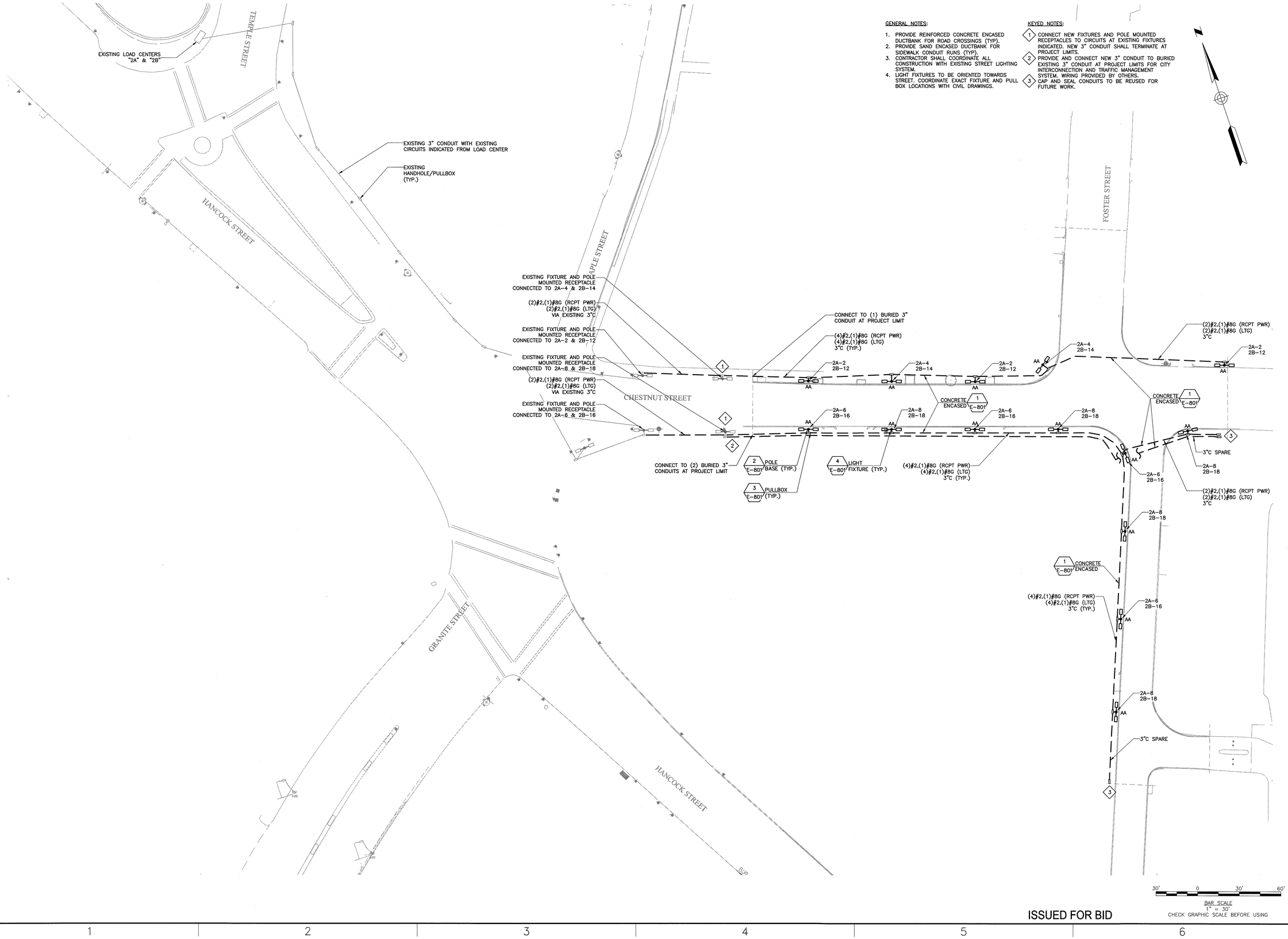
WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 9 OF 11

E-001

\\ecluthere\Projects\228255 Quincy MA - Surface Restoration Project\wip\Drawings\Electrical\228255-E-001.dwg, Apr 08, 2016 - 2:32pm

24x36 SHEET
1:1



GENERAL NOTES:

1. PROVIDE REINFORCED CONCRETE ENCASED DUCTBANK FOR ROAD CROSSINGS (TYP).
2. PROVIDE SAND ENCASED DUCTBANK FOR SIDEWALK CONDUIT RUNS (TYP).
3. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION WITH EXISTING STREET LIGHTING SYSTEM.
4. LIGHT FIXTURES TO BE ORIENTED TOWARDS STREET. COORDINATE EXACT FIXTURE AND PULL BOX LOCATIONS WITH CIVIL DRAWINGS.

KEYED NOTES:

1. CONNECT NEW FIXTURES AND POLE MOUNTED RECEPTACLES TO CIRCUITS AT EXISTING FIXTURES INDICATED. NEW 3" CONDUIT SHALL TERMINATE AT PROJECT LIMITS.
2. PROVIDE AND CONNECT NEW 3" CONDUIT TO BURIED EXISTING 3" CONDUIT AT PROJECT LIMITS FOR CITY INTERCONNECTION AND TRAFFIC MANAGEMENT SYSTEM. WIRING PROVIDED BY OTHERS.
3. CAP AND SEAL CONDUITS TO BE REUSED FOR FUTURE WORK.

30' 0 30' 60'
BAR SCALE
1" = 30'
CHECK GRAPHIC SCALE BEFORE USING

ISSUED FOR BID

980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com
WOODARD & CURRAN
COMMITMENT & INTEGRITY DRIVE RESULTS

THIS DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN INC. AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

COMMONWEALTH OF MASSACHUSETTS
ANDREW FITZPATRICK
ELECTRICAL
NO. 59761
REGISTERED PROFESSIONAL ENGINEER

REV	DESCRIPTION	DATE

DESIGNED BY: JLH
DRAWN BY: JLH
CHECKED BY: KRM
229255-E-101.DWG

ELECTRICAL SITE PLAN

CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

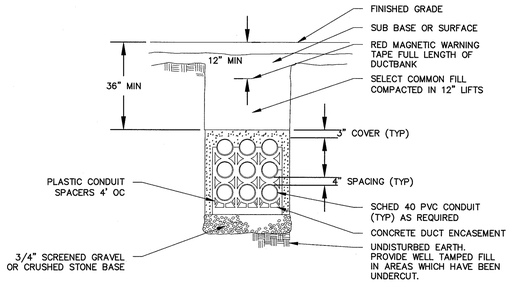
JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 10 OF 11

E-101

\\wc\shared\Projects\229255 Quincy MA - Surface Restoration Project\wip\Drawings\Electrical\229255-E-101.dwg, Apr 08, 2016 - 2:33pm

NOTES:

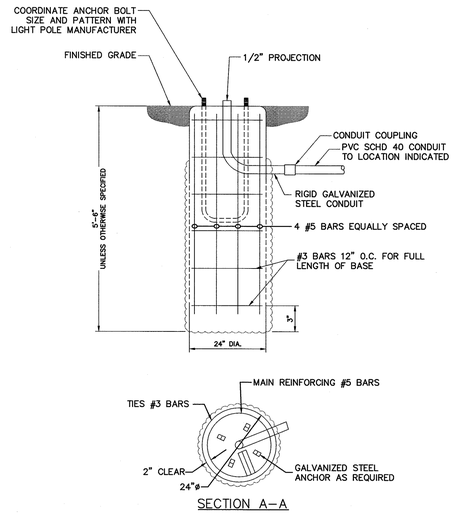
1. PROVIDE MINIMUM 1'-0" SPACING WITHIN DUCTBANK BETWEEN POWER AND CONTROL/COMMUNICATIONS CONDUITS.
2. QUANTITY OF DUCTS SHOWN IN DETAILS ARE SHOWN DIAGRAMMATICALLY ONLY TO IDENTIFY GENERAL CONSTRUCTION AND SPACING REQUIREMENTS. QUANTITY AND SIZE OF CONDUITS SHALL BE AS IDENTIFIED IN THE DUCTBANK SCHEDULE.
3. PROVIDE CONCRETE ENCASED DUCTBANK FOR ALL DUCTBANKS THAT RUN BENEATH ROADWAYS, UNLESS OTHERWISE NOTED, EXTEND ENCASEMENT A MINIMUM OF 3'-0" PAST EDGES OF ROADWAY. PROVIDE SAND ENCASED DUCTBANK FOR ALL OTHER LOCATIONS.
4. ALL CONCRETE SHALL BE 4000PSI AT 28 DAYS.



TYPICAL REINFORCED CONCRETE ENCASED UNDERGROUND DUCT BANK DETAILS

1 / E-101

SCALE: NO SCALE



NOTE:

1. LIGHT POLE BASES SHALL BE INSTALLED A MINIMUM OF 2'-0" FROM THE PAVED ROAD.
2. ALL CONCRETE SHALL BE 5000PSI AT 28 DAYS.

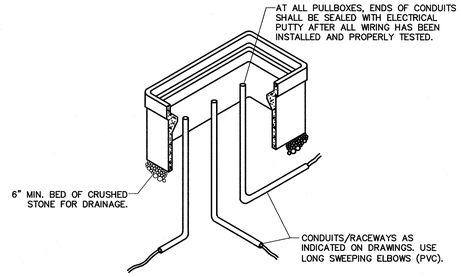
LIGHT POLE BASE DETAIL

2 / E-101

SCALE: NO SCALE

PULLBOX NOTES:

1. CONDUITS NOT TERMINATING IN OR AT THE PULLBOXES SHALL NOT RUN THROUGH PULLBOXES, UNLESS REQUIRED FOR PULLING.
2. FINAL DIMENSIONS OF PULL BOXES SHALL BE AS VERIFIED IN THE FIELD AND SHALL BE IN ACCORDANCE WITH NEC.
3. PULLBOX COVERS SHALL BE CAST IRON. PROVIDE EXTENSION AS REQUIRED.
4. PULLBOXES SHALL BE PRECAST, AND SHALL BE ROW H20 RATED.



PULLBOX DETAIL

3 / E-101

SCALE: NO SCALE

DIRECTORY	BRKR	POLE	CKT #	KVA	KVA LOADS A	KVA LOADS B	KVA	CKT #	POLE	BRKR	DIRECTORY
GRANITE, HANCOCK SW SIDE	20	1	1	1.05	2.25		**1.20**	2	1	20	**HANCOCK EAST SIDE, CHESTNUT**
GRANITE, HANCOCK SW SIDE	20	1	3	0.60		1.80	**1.20**	4	1	20	**HNCK EAST SIDE, CHESTNUT**
SPARE	20	1	5		1.05		**1.05**	6	1	20	**HNCK, TMPLE S'TH SIDE, CHESTNUT**
SPARE	20	1	7			1.35	**1.35**	8	1	20	**HNCK, TMPLE SOUTH, CHESTNUT**
SPARE	20	1	9		0.00			10	1	20	SPARE
				SUBTOTAL	3.30	3.15	SUBTOTAL				
VOLTAGE:	120/240		TOTAL kVA		6.45				PANEL NAME:		LOAD CENTER 2A LIGHTING
MAIN BREAKER:	MLO		TOTAL AMPS		27				LOCATION:		HANCOCK & TEMPLE
BUSES:	225								MOUNTING:		SURFACE
PH & WIRES:	1PH 3W								AIC RATING:		10 kAIC
NOTES:											

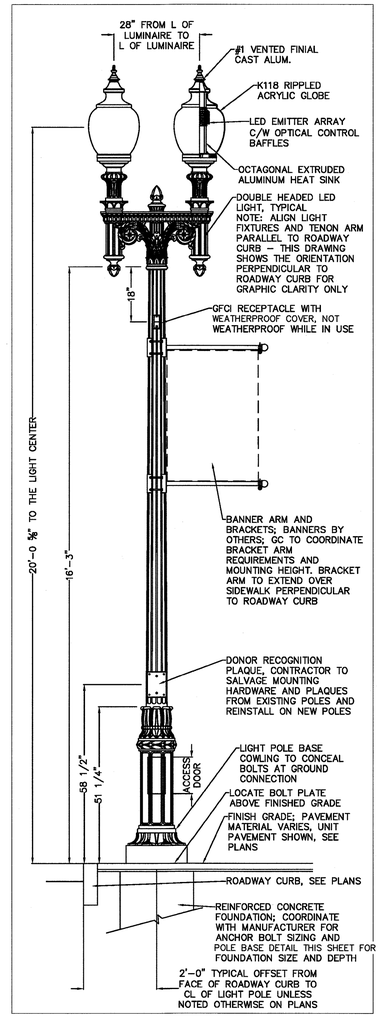
LOAD CENTER "2A" PANEL SCHEDULE

SCALE: NO SCALE

DIRECTORY	BRKR	POLE	CKT #	KVA	KVA LOADS A	KVA LOADS B	KVA	CKT #	POLE	BRKR	DIRECTORY
GRANITE, HANCOCK SW SIDE	20	1	11	1.08	2.52		**1.44**	12	1	20	**HANCOCK EAST SIDE, CHESTNUT**
GRANITE, HANCOCK SW SIDE	20	1	13	0.72		2.16	**1.44**	14	1	20	**HNCK EAST SIDE, CHESTNUT**
SPARE	20	1	15		1.26		**1.26**	16	1	20	**HNCK, TMPLE S'TH SIDE, CHESTNUT**
SPARE	20	1	17			1.62	**1.62**	18	1	20	**HNCK, TMPLE SOUTH, CHESTNUT**
SPARE	20	1	19		0.00			20	1	20	SPARE
				SUBTOTAL	3.78	3.78	SUBTOTAL				
VOLTAGE:	120/240		TOTAL kVA		7.56				PANEL NAME:		LOAD CENTER 2B RECEPTACLES
MAIN BREAKER:	MLO		TOTAL AMPS		32				LOCATION:		HANCOCK & TEMPLE
BUSES:	225								MOUNTING:		SURFACE
PH & WIRES:	1PH 3W								AIC RATING:		10 kAIC
NOTES:											

LOAD CENTER "2B" PANEL SCHEDULE

SCALE: NO SCALE



LIGHT FIXTURE DETAIL

4 / E-101

SCALE: NO SCALE

LIGHT FIXTURE SCHEDULE

ALL FIXTURES SHALL BE FURNISHED COMPLETE WITH ALL HARDWARE, LAMPS, HANGERS, FITTINGS, ETC., FOR A COMPLETE AND PROPER INSTALLATION.

TYPE	MANUFACTURER	CATALOG NUMBER	LAMP TYPE	LAMP WATT	VOLTAGE	MTG.	REMARKS/ RECOMMENDATIONS
	EXTERIOR POST TOP LED STREET LIGHTING FIXTURE W/TYPE III DISTRIBUTION						
AA	KING LUMINAIRE OR EQUAL	FIXTURE:K118-BAAR-III-75 (SSL)-5000	LED	70W	120V	POLE MOUNTED	FIXTURE AND POLE FINISH SHALL BE PAINTED THE SAME COLOR AS THE EXISTING STREET FIXTURES. PROVIDE DECORATE BASE TO MATCH EXISTING.

LIGHT FIXTURE SCHEDULE

SCALE: NO SCALE

ISSUED FOR BID

980 Washington Street, Suite 325
Dedham, Massachusetts 02026
800.446.5518 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

THE DOCUMENT IS THE PROPERTY OF WOODARD & CURRAN INC. AND ITS CLIENT. REPRODUCTION OR MODIFICATION WITHOUT WRITTEN PERMISSION IS PROHIBITED.

WOODARD & CURRAN

COMMONWEALTH OF MASSACHUSETTS
ANDREW FITZPATRICK
ELECTRICAL
NO. 50761
REGISTERED PROFESSIONAL ENGINEER
2017

REV	DESCRIPTION	DATE

DESIGNED BY: AJH | CHECKED BY: KRM
DRAWN BY: AJH | 229255-E-801.DWG

ELECTRICAL DETAILS SHEET

CITY OF QUINCY, MASSACHUSETTS
1305 HANCOCK ST, QUINCY, MA

WEST OF CHESTNUT
SURFACE IMPROVEMENT PROJECT

JOB NO.: 228918.00
DATE: APRIL 2016
SCALE: AS NOTED
SHEET: 11 OF 11

E-801

\\wc1shared\Projects\229255 Quincy MA - Surface Restoration Project\wip\Drawings\Electrical\229255-E-801.dwg, Apr 08, 2016 - 2:33pm