Addendum #1

April 25, 2025

SCOTT
WEBB
ARCHITECT
103 West Walnut Street
Oxford, Ohio 45056
(513) 523-3838
www.scottwebbarchitect.com

Re: New Food Pantry & Social Service Center for TOPSS
Talawanda Oxford Pantry & Social Services
8 Reagh Way, Oxford Ohio

Bid Date: 4:00 pm May 2, 2025

Drawings and Bid documents for the New Food Pantry & Social Service Center for TOPSS have been changed/modified as follows:

A. This Addendum shall be considered part of the bid documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Addendum shall govern and take precedence.

B. Bidders are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Addendum. It will be construed that each bidder's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

Drawings:

- Architectural Sheet A-6 has been reissued, changing the size and materials of the Dumpster Enclosure
- Architectural Sheet A-8 has been added, describing the Special Inspections
- Civil Sheets have been reissued to include an additional Fire Hydrant, the removal of (2) trees, and the elimination of a parking space.
- Plumbing Drawings have been updated to include a basis of design for the Trap Seal. A Specification Sheet & Supply Box & Hose Bib Schedules have been added
- Plumbing Drawings now provide connection for future water softener (by owner)

Bid Documents:

- BF-12 Delete the following: "*NOTE: The bidder must perform at least 50% of the total contract cost with its own forces*."

Clarifications:

- All Permits & Tap Fees will be paid directly by the owner.

Updated Drawings and Documents are available through the DropBox link provided.

A. GENERAL REQUIREMENTS

1. THE AIA DOCUMENT A201 'GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION' IS HEREBY MADE A PART OF THESE NOTES. A COPY OF WHICH MAY BE OBTAINED FROM THE ARCHITECT BY REQUEST, OR FROM THE AIA OFFICE (LONGWORTH HALL: 700 WEST PETE ROSE WAY: CINCINNATI, OH).

2. ALL WORK SHALL COMPLY WITH OBBC AND CABO CODES WHERE APPLICABLE. WORK SHALL FOLLOW SHAPE OR ARRANGEMENT AND DIMENSION OF DRAWINGS AND MANUFACTURERS INSTALLATION INSTRUCTIONS.

3. ALL CHANGES SHALL BE APPROVED IN WRITING BY THE ARCHITECT AND THE OWNER PRIOR TO BEGINNING AFFECTED WORK.

B. PERMITS & TESTS

1. THE OWNER SHALL SECURE AND PAY FOR THE COST OF THE BUILDING PERMIT AND TESTS AS APPLICABLE.
   a.) GENERAL CONTRACTOR IS TO OBTAIN INSPECTIONS, AND APPROVALS PER LOCAL AND STATE REQUIREMENTS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID TO THE OWNER.
   b.) ELECTRICAL, PLUMBING, AND HVAC SUB-CONTRACTORS SHALL OBTAIN AND PAY FOR THEIR RESPECTIVE PERMITS AND INSPECTIONS AND SHALL BE RESPONSIBLE FOR THE DESIGN AND DRAWINGS REQUIRED TO GET SUCH PERMITS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID TO THE OWNER

C. STATE & LOCAL TAXES

1. THE GENERAL CONTRACTOR AND EACH SUB-CONTRACTOR SHALL PAY ANY APPLICABLE FEDERAL, STATE, AND LOCAL TAXES.

D. CONTRACT DOCUMENTS

1. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE INTENDED TO DESCRIBE AND PROVIDE FOR A FINISHED PIECE OF WORK. THEY ARE INTENDED TO BE COOPERATIVE, AND WHAT IS CALLED FOR BY EITHER SHALL BE AS BINDING UPON THE CONTRACTOR AS IF CALLED FOR BY BOTH.

2. IF ANY PERSON CONTEMPLATING SUBMITTING A BID FOR CONSTRUCTION OF THE WORK IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE PROPOSED CONTRACT DOCUMENTS, OR FINDS DISCREPANCIES IN OR OMISSIONS FROM ANY PART OF THE PROPOSED CONTRACT DOCUMENTS, HE MAY ASK THE ARCHITECT FOR INTERPRETATION THEREOF.

3. IT IS UNDERSTOOD AND AGREED BY THE CONTRACTOR THAT HIS WORK SHALL BE COMPLETE IN EVERY DETAIL, EVEN THOUGH EVERY ITEM NECESSARILY INVOLVED IS NOT PARTICULARLY MENTIONED IN THE CONTRACT DRAWINGS OR THE SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE WORK INTENDED TO BE DESCRIBED, AND SHALL NOT AVAIL HIMSELF OF ANY MANIFEST ERROR OR OMISSION, SHOULD SUCH EXIST.

E. EXISTING CONDITIONS

1. BEFORE SUBMITTING A BID, EACH BIDDER SHALL CAREFULLY EXAMINE THE DRAWINGS, READ THE SPECIFICATIONS AND ALL OTHER PROPOSED CONTRACT DOCUMENTS, AND VISIT THE SITE OF THE WORK. EACH BIDDER SHALL FULLY INFORM HIMSELF PRIOR TO BIDDING AS TO ALL EXISTING CONDITIONS AND LIMITATIONS UNDER WHICH THE WORK IS TO BE PERFORMED, AND HE SHALL INCLUDE IN HIS BID A SUM TO COVER ALL COSTS OF ALL ITEMS NECESSARY TO PERFORM THE WORK AS SET FORTH IN THE PROPOSED CONTRACT DOCUMENTS. NO ALLOWANCE WILL BE MADE TO ANY BIDDER BECAUSE OF LACK OF SUCH EXAMINATION OR KNOWLEDGE. THE SUBMISSION OF A BID WILL BE CONSTRUED AS CONCLUSIVE EVIDENCE THAT THE BIDDER HAS MADE SUCH EXAMINATION.

F. LOCATE UNDERGROUND UTILITIES

1. PRIOR TO BEGINNING OF ANY WORK ON THE SITE, THE GENERAL CONTRACTOR IS TO LOCATE ANY AND ALL UNDERGROUND UTILITIES INCLUDING: GAS LINES, WATER LINES, SEWERS, UNDERGROUND ELECTRIC, TELEPHONE, CABLE TV, OR ANY OTHER PRIVATE OR PUBLIC SERVICE.

G. INSURANCE

1. PRIOR TO COMMENCING ANY WORK ON THE SITE, THE GENERAL CONTRACTOR SHALL PURCHASE AND MAINTAIN IN FORCE THROUGHOUT THE ENTIRE PROJECT UNTIL FINAL ACCEPTANCE BY THE OWNER SUCH INSURANCE AS TO PROTECT HIM/HERSELF FROM CLAIMS WHICH MAY ARISE OUT OF OR RESULT FROM THE CONTRACTOR'S OPERATION UNDER THIS CONTRACT.

2. ALL CONTRACTORS SHALL FURNISH TO THE OWNER PROOF OF HAVING IN EFFECT LIABILITY INSURANCE, INCLUDING:
   a.) WORKMENS COMPENSATION
   b.) EMPLOYER LIABILITY
   c.) PUBLIC LIABILITY, PROPERTY LIABILITY, AND PERSONAL INJURY
   d.) AUTO LIABILITY, PROPERTY DAMAGE, AND PERSONAL INJURY

3. CERTIFICATE OF INSURANCE FORM: AIA DOCUMENT G705 'CERTIFICATE OF INSURANCE,' LATEST EDITION, SHALL BE USED FOR THE PROJECT.

H. WORK OF THE CONTRACT

1. PROCEDURES AND METHODS OF CONSTRUCTION SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

2. IT SHALL BE UNDERSTOOD THAT THE ARCHITECT'S ON-SITE OBSERVATION OF THE WORK IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN OR NEAR THE CONSTRUCTION SITE.

3. COMPLIANCE WITH ALL REGULATIONS PERTAINING TO SAFETY AND HEALTH IS THE SOLE AND COMPLETE RESPONSIBILITY OF EACH CONTRACTOR.

4. THE GENERAL CONTRACTOR SHALL SCHEDULE AND COORDINATE WORK OF ALL TRADES INCLUDING PLUMBING, HVAC, ELECTRICAL CONTRACTORS. HE SHALL DIRECT ARRANGEMENTS FOR STORAGE OF MATERIALS. HE SHALL COORDINATE AND EXPEDITE THE WORK OF ALL TRADES SO THAT PROGRESS OF THE PROJECT SHALL BE KEPT ON SCHEDULE.

5. EACH CONTRACTOR AND SUBCONTRACTOR SHALL COORDINATE THEIR WORK WITH ADJACENT WORK, COOPERATE WITH ONE ANOTHER AND WITH OTHER TRADES TO FACILITATE GENERAL PROGRESS OF WORK. EACH TRADE SHALL AFFORD OTHER TRADES EVERY REASONABLE OPPORTUNITY FOR INSTALLATION OF THEIR WORK OR STORAGE OF THEIR MATERIALS.

6. MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, USED, CLEANED AND CONDITIONED AS PER MANUFACTURER'S PRINTED SPECIFICATIONS AND DIRECTIONS, UNLESS SPECIFIED TO CONTRARY.

7. BEFORE ORDERING MATERIALS OR DOING WORK WHICH IS DEPENDENT FOR PROPER SIZE OR INSTALLATION ON COORDINATION WITH BUILDING CONDITIONS, TAKE MEASUREMENTS AT BUILDINGS AND BE RESPONSIBLE FOR SAME. NO CLAIM BASED ON DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND THOSE SHOWN ON DRAWINGS WILL BE CONSIDERED. ANY DISCREPANCIES BETWEEN DRAWINGS AND/OR SPECIFICATIONS AND EXISTING CONDITIONS SHALL BE REFERRED TO ARCHITECT FOR ADJUSTMENT BEFORE ANY AFFECTED WORK IS STARTED.

8. SUBSTITUTIONS OF SPECIFIED MATERIALS MUST BE APPROVED BY THE ARCHITECT BEFORE INCLUDING IN ANY WORK.

9. WHEN NEW SITE WORK BECOMES INTRICATE AND CLOSELY ADJOINS EXISTING CONDITIONS, FIELD VERIFY LOCATIONS AND CONDITIONS. SHOULD ANY DISCREPANCIES OCCUR IMMEDIATELY REPORT TO THE ARCHITECT FOR CLARIFICATION.

10. EACH CONTRACTOR SHALL DO ALL CUTTING, FITTING, OR PATCHING OF HIS WORK THAT MAY BE REQUIRED TO MAKE ITS SEVERAL PARTS COME TOGETHER PROPERLY AND FIT IT TO RECEIVE OR BE RECEIVED BY THE WORK OF OTHER CONTRACTORS SHOWN OR REASONABLY IMPLIED BY THE DRAWINGS AND SPECIFICATIONS FOR THE COMPLETION OF ALL WORK CLASSIFICATION CONTRACTS AND SHALL BE MADE GOOD AFTER THEM AS THE ARCHITECT MAY DIRECT.

11. GENERAL CONTRACTOR SHALL CONSTRUCT AND MAINTAIN THROUGH THE COURSE OF CONSTRUCTION ALL TEMPORARY CLOSURES REQUIRED TO PROJECT THE BUILDING FROM WEATHER, INFILTRATION, VANDALISM, UNAUTHORIZED INTRUSION, DUST AND DIRT INFILTRATION AND LOSS OF HEAT.

12. CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE AND SAFE SHORING AND BRACING OF THE STRUCTURE DURING THE REMOVAL AND REPLACEMENT OF ANY STRUCTURAL ELEMENTS. ANY DAMAGE DONE TO THE STRUCTURE CAUSED BY IMPROPER BRACING OR SHORING SHALL BE REPAIRED TO THE OWNERS SATISFACTION BY THE CONTRACTOR AND AT NO ADDITIONAL COST TO THE OWNER.

I. TEMPORARY UTILITIES

1. WATER
   a.) PLUMBING CONTRACTOR SHALL PROVIDE NECESSARY TEMPORARY PIPING AND WATER SUPPLY AS SOON AS PRACTICAL AND UPON INSTALLATION OF FINAL SERVICE OR FIXTURES, REMOVE ANY SUCH TEMPORARY FACILITY.
   b.) OWNER SHALL PROVIDE AND PAY FOR WATER USED DURING CONSTRUCTION.

2. ELECTRICITY
   a.) ELECTRICAL CONTRACTOR SHALL PROVIDE NECESSARY, TEMPORARY POWER SUPPLY TO THE SITE AS SOON AS PRACTICAL IN ACCORDANCE WITH POWER PROVIDER GUIDELINES AND UPON INSTALLATION OF FINAL SERVICE OR FIXTURES, REMOVE SUCH TEMPORARY FACILITY.
   b.) OWNER SHALL PAY FOR ELECTRICITY USED DURING CONSTRUCTION.

J. CONSTRUCTION CLEANING

1. AS NECESSARY AND AS DIRECTED BY ARCHITECT, EACH CONTRACTOR SHALL REMOVE FROM THE PREMISES AND RECYCLE WHERE PRACTICAL, OR OTHERWISE LEGALLY DISPOSE OF, ALL ACCUMULATION OF DEBRIS, WASTE MATERIALS AND RUBBISH CAUSED BY HIS/HER EMPLOYEES.

K. PROJECT CLOSEOUT

1. REPAIR, PATCH AND TOUCH-UP MARRED SURFACES TO NEW, UNUSED QUALITY AND MATCH ADJACENT SURFACES.

2. REPLACE FILTERS IN ALL HVAC EQUIPMENT OPERATING DURING CONSTRUCTION.

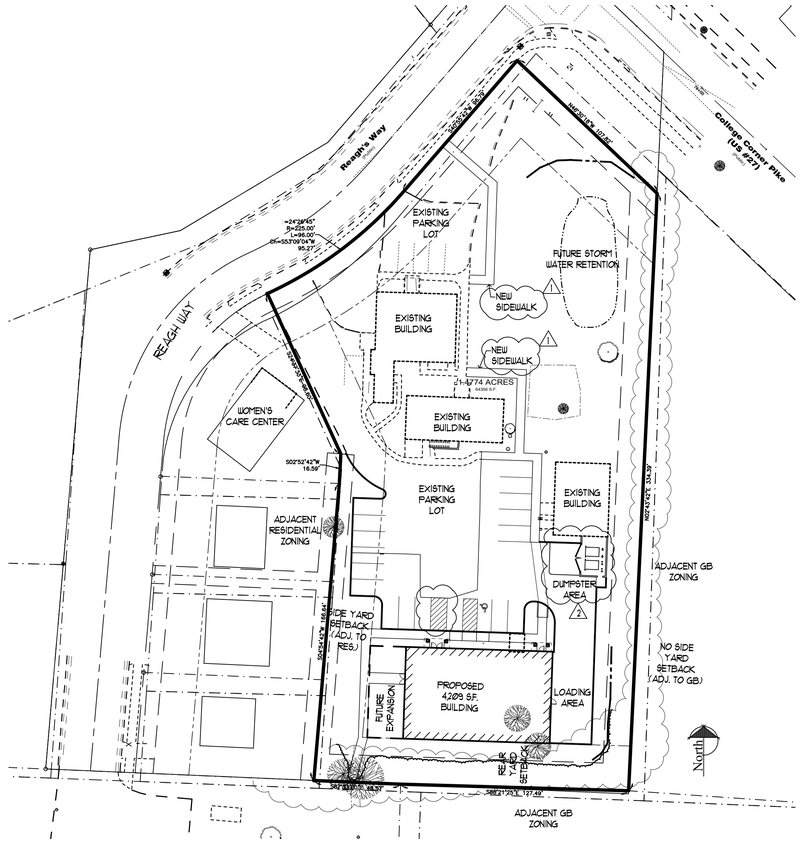
3. FINAL ACCEPTANCE OF THE WORK WILL OCCUR WHEN THE WORK, AFTER BEING SUBMITTED TO THE OWNER, IS DETERMINED BY THE ARCHITECT TO BE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE CONTRACT. FINAL ACCEPTANCE WILL BE EVIDENCED BY A DULY AUTHORIZED REPRESENTATIVE OF THE OWNER AND ARCHITECT, AND IF THERE ARE ITEMS OF WORK REMAINING TO BE COMPLETED, FINAL ACCEPTANCE WILL BE SUBJECT TO A DETAILED PUNCH LIST OF ITEMS OF WORK REMAINING TO BE COMPLETED ACCOMPANIED BY A SIGN-OFF LETTER DULY EXECUTED BY THE CONTRACTOR AND THE OWNER.

4. THE CONTRACTOR SHALL PROVIDE TO THE OWNER:
   a.) FINAL CERTIFICATE OF INSPECTIONS REQUIRED FOR OCCUPANCY. 'CERTIFICATE OF OCCUPANCY' FROM GOVERNING AUTHORITY.
   b.) PLUMBING, HVAC, AND ELECTRICAL EQUIPMENT OPERATING MANUALS, MANUFACTURER'S PRODUCT INFORMATION, SHOP DRAWINGS, AND WARRANTY INFORMATION.

5. A FINAL AFFIDAVIT AND LIEN RELEASE WILL BE REQUIRED BEFORE FINAL PAYMENT IS MADE.

L. GUARANTEES

1. ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF ONE FULL YEAR FROM THE DATE OF COMPLETION OF THE JOB, AND THE CONTRACTOR SHALL FIX ANY DEFICIENCIES WITHOUT COST TO THE OWNER FOR THAT FULL PERIOD.



SITE PLAN

1" = 40'-0"

BUILDING CODE REVIEW

(2024 OHIO BUILDING CODE)

SCOPE OF WORK

PROPOSAL CONTAINED HEREIN DESCRIBES THE CONSTRUCTION OF A NEW PRE-FABRICATED METAL BUILDING TO HOUSE A NEW FOOD PANTRY AND SOCIAL SERVICE CENTER.

A. OVERALL BUILDING AREA: 4,209 SF. PER FLOOR

B. USE GROUP CLASSIFICATION: FIRST FLOOR: 'B' BUSINESS

C. TYPE OF CONSTRUCTION: 2B - NON-COMBUSTIBLE

D. HEIGHT & AREA LIMITATIONS: BASED ON USE GROUP 'B' BUSINESS

'B' - BUSINESS (NS)
ALLOWABLE HEIGHT: 3-STORY, 55'-0" ACTUAL HEIGHT: 1-STORY, 14'-4"
ALLOWABLE AREA: 23,000 SF. ACTUAL AREA: 4,209 SF.

E. PHYSICALLY HANDICAPPED ACCESSIBILITY: PROVIDED

F. FIRE PROTECTION SYSTEM: NONE

G. OCCUPANT LOAD: GROUND FLOOR RESTAURANT:

'B', TABLE 1004.5 (BUSINESS) - 4,209 SF @ 150 SF GROSS / OCCUPANT = 28 OCCUPANTS
TOTAL OCCUPANTS = 28 OCCUPANTS

INDEX OF DRAWINGS:

NEW FOOD PANTRY & SOCIAL SERVICE CENTER

TOPSS

8 REAGH'S WAY
OXFORD, OHIO 45056

SCOTT WEBB
ARCHITECT
103 West Walnut Street
Oxford, Ohio 45056
(513) 523-3838
www.scottwebbarchitect.com

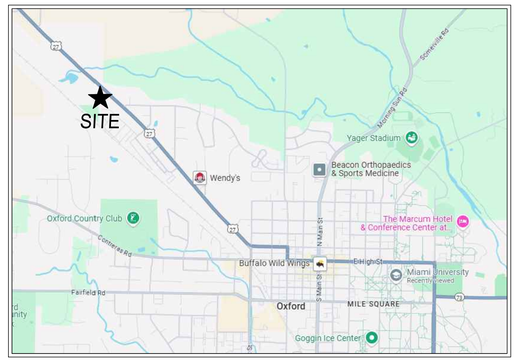
KLH ENGINEERS
KOHRS LONNEMANN HEIL ENGINEERS, INC.
WWW.KLHENGRS.COM
1508 ALEXANDRIA PIKE, SUITE 11
FT. THOMAS, KENTUCKY 41075
800-354-9783 859-442-8050
859-442-8058 FAX
MECHANICAL/ ELECTRICAL ENGINEERS

bayer becker
www.bayerbecker.com
110 S. College Avenue, Suite 101
Oxford, OH 45056 - 513.523.4270

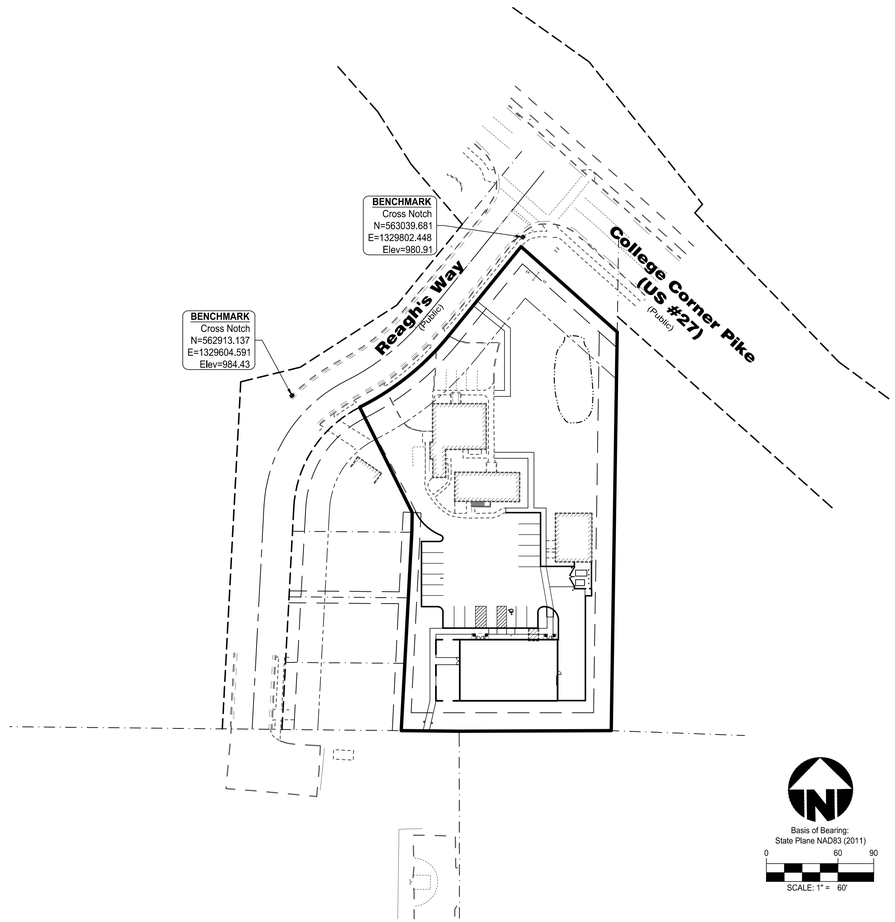
STATE OF OHIO
L. SCOTT WEBB
11193
REGISTERED ARCHITECT

L. SCOTT WEBB, LICENSE #11193
EXPIRATION DATE 12/31/2025

TOPSS: TALAWANDA OXFORD
PANTRY & SOCIAL SERVICES
SECTION 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE



VICINITY MAP
NO SCALE



AREA MAP
1"=60 FT

811
Know what's **below.**
Call before you dig.

LOCATION OF ALL EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION

OWNER
TOPPSS
5445 COLLEGE CORNER PIKE
OXFORD, OHIO 45056

ENGINEER/SURVEYOR
LANDSCAPE ARCHITECT
BAYER BECKER, INC.
6900 TYLERSVILLE ROAD, SUITE A
MASON, OHIO 45040
PH: (513) 336-6600

BENCHMARK #1
CROSS NOTCH
LOCATED NORTH OF REAGH'S WAY
N:562913.137
E:1329604.591
ELEV:984.43

BENCHMARK #2
CROSS NOTCH
LOCATED IN SOUTH CORNER OF THE
INTERSECTION AT COLLEGE CORNER PIKE AND REAGH'S WAY
N:563039.681
E:1329802.448
ELEV: 980.91

INDEX OF SHEETS

STATE OF OHIO
GREGORY J. KOCH
E - 69324
PROFESSIONAL ENGINEER
4/22/25

Item	Revision Description	Date	Drawn	Chk
1	REVISED PER OWNER REVIEW	02-28-25	GJK	GJK
2	REVISED PER CITY COMMENTS	04-22-25	SJW	

TOPSS: TALAWANDA OXFORD
PANTRY & SOCIAL SERVICES
SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

TITLE SHEET

bayer becker
www.bayerbecker.com
110 S. Cedar Avenue, Suite 101
Oxford, OH 45056 - 513.523.4270

Drawing: 24-0042 CD
Drawn by: SJW
Checked By: GJK
Issue Date: 02-14-25
Sheet: C1.0

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Plot time: Apr 22, 2025 - 2:53pm
Drawing name: J:\2024\24-0042\CV\DWG\24-0042 CD.dwg - Layout Tab: Layout1

GENERAL

1. ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (2023) AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE GOVERNING AGENCIES. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS.
3. FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITY PROTECTION SERVICE (OUPS) AND ALL OTHER AGENCIES WHICH MAY HAVE UNDERGROUND UTILITIES INVOLVED IN THIS PROJECT AND ARE NOT MEMBERS OF OHIO UNDERGROUND PROTECTION, INC.
4. CONTRACTOR AND OWNER SHALL VERIFY AND ACCEPT ALL QUANTITIES PRIOR TO BEGINNING CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY THAT COORDINATES, IF USED, MATCH PLAN DIMENSIONS. WHEN IN CONFLICT, THE PLAN DIMENSIONS SHALL GOVERN OVER COORDINATES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
6. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".
7. EXISTING SITE SURVEY, TOPOGRAPHY, AND SUBSURFACE CONDITIONS: EXISTING CONDITIONS PRESENTED IN DRAWING, REPORT OR SPECIFICATION FORM ARE BELIEVED ACCURATE WITHIN NORMAL INDUSTRY TOLERANCES BUT ARE NOT GUARANTEED. INVESTIGATE, SURVEY, CONFIRM AND VERIFY ALL CONDITIONS BEARING ON THE WORK BY ANY MEANS NECESSARY BEFORE STARTING ANY WORK THAT CHANGES EXISTING CONDITIONS. REPORT ANY UNACCEPTABLE DISCREPANCIES TO THE ENGINEER IN WRITING BEFORE BEGINNING OPERATIONS
   - 7.1. WRITTEN CLAIMS OF DIFFERENCE SHALL BE ACCOMPANIED BY SUBSTANTIATING EVIDENCE. CLAIMS OF DIFFERENCE SHALL BE RESOLVED, INCLUDING DETERMINATION OF QUANTITIES AND COSTS AND METHODS OF CONTRACT MODIFICATION, BEFORE WORK THAT ALTERS SUCH EXISTING CONDITIONS IS STARTED.
   - 7.2. INITIATION OF SITE-CLEARING, SOIL-MOVING OPERATIONS, DEMOLITION OR OTHER ACTIVITY THAT ALTERS EXISTING CONDITIONS SHALL BE EVIDENCE THAT CONTRACTOR HAS MADE ALL INVESTIGATIONS AND EVALUATIONS IT DEEMS NECESSARY AND HAS ACCEPTED ALL EXISTING CONDITIONS PRESENT WHETHER OR NOT THEY CONFORM EXACTLY TO THE DOCUMENTS.
   - 7.3. WITHOUT ADVANCE WRITTEN NOTIFICATION OF UNACCEPTABLE DISCREPANCY, NO CLAIM FOR EXTRA WILL BE CONSIDERED FOR A CLAIM OF DIFFERENCE BETWEEN DOCUMENTS AND ACTUAL CONDITIONS AFTER THE CONTRACTOR HAS ALTERED EXISTING CONDITIONS.
8. WHERE CONNECTING TO EXISTING ASPHALT PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING EDGE OF PAVEMENT TO PROVIDE A CLEAN AND SOUND EDGE. ITEM 407 TACK COAT SHALL BE APPLIED TO THE ENTIRE CUT FACE OF THE EXISTING PAVEMENT PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT.
9. PARKING LOT PAVEMENT MARKINGS SHALL CONFORM TO ITEM 641 PAVEMENT MARKINGS AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAVEMENT MARKING MATERIAL SHALL BE PER ITEM 642 TRAFFIC PAINT UNLESS OTHERWISE NOTED.
10. PARKING LOT STRIPING SHALL BE FOUR (4) INCHES WIDE WHITE HIGHWAY-TYPE STRIPING APPLIED IN ACCORDANCE WITH THE PLAN.
11. ALL DIMENSIONS AND PROPOSED ELEVATIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
12. ALL RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
13. PARKING STALLS ARE 9'x18' UNLESS OTHERWISE NOTED.
14. ALL SITE CONCRETE SHALL BE PER ODOT ITEM 499 CLASS C UNLESS OTHER WISE NOTED ON THE PLANS.

DEMOLITION NOTES

1. THE TOPOGRAPHIC AND UTILITY INFORMATION SHOWN IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY BAYER BECKER, AND VARIOUS UTILITY PLANS PROVIDED BY THOSE GOVERNING AGENCIES.
2. THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLAN HAVE BEEN OBTAINED BY FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS AND DO NOT NECESSARILY REPRESENT ALL UNDERGROUND UTILITIES ADJACENT TO OR UPON THE PREMISES. THE ENGINEER DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY LOCATIONS WITH UTILITY COMPANIES BEFORE MAKING EXCAVATIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS WHETHER SHOWN ON THESE PLANS OR NOT.
3. APPROPRIATE UTILITY COMPANIES AND OHIO UTILITIES PROTECTION SERVICE (811) SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO BREAKING GROUND FOR THE PURPOSE OF VERIFYING BY FIELD INSPECTION THE EXACT LOCATION OF THE UNDERGROUND UTILITY. UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS ACCORDING TO AVAILABLE INFORMATION.
4. THESE PLANS, AS PREPARED BY BAYER BECKER, DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE DEMOLITION/CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF BAYER BECKER'S REGISTERED PROFESSIONAL ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY U.S. OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) AND/OR LOCAL REGULATIONS..
5. ALL CONTRACTORS INCLUDING BUT NOT LIMITED TO THE DEMOLITION, EXCAVATION, PAVING, PLUMBING, ELECTRICAL, SIGN, FIRE PROTECTION, HVAC CONTRACTORS SHALL BE UNDER THE DIRECTION OF THE GENERAL CONTRACTOR OR OWNER WHO WILL BE HELD RESPONSIBLE FOR THE COORDINATION OF ALL WORK ON THIS PROJECT AND THE PROPER EXECUTION OF THE SAME.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
7. REMOVAL AND/OR RELOCATION OF ANY UTILITIES SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY AND SHALL BE DISCONNECTED PER THE ASSOCIATED UTILITY AGENCY'S REQUIREMENTS.
8. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES, FACILITIES, AND STRUCTURES THAT ARE INTENDED TO CONTINUE TO PROVIDE SERVICE WHETHER SHOWN ON THE PLANS OR NOT.
9. WHERE CONNECTING TO EXISTING PAVEMENT, THE CONTRACTOR SHALL SAWCUT THE EXISTING EDGE OF PAVEMENT TO PROVIDE A SOUND & CLEAN EDGE. THE CONTRACTOR SHALL APPLY ITEM 407 TACK COAT TO THE ENTIRE CUT FACE OF THE EXISTING PAVEMENT PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT.
10. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PRIOR TO DEMOLITION AND CONSTRUCTION.
11. AS SOON AS DEMOLITION WORK HAS BEEN OTHERWISE COMPLETED AND APPROVED BY THE OWNER, EARTHWORK MAY BEGIN. THE FINAL GRADE IN AREAS OUTSIDE THE CONSTRUCTION SITE SHALL BE SUCH AS TO PRESENT A NEAT, WELL-DRAINED APPEARANCE, AND TO PREVENT WATER FROM DRAINING UNNECESSARILY ONTO ADJACENT PROPERTIES.

GENERAL UTILITY

1. BACKFILL OF ALL UTILITY EXCAVATIONS IN STRUCTURAL AREAS INCLUDING UNDER PAVEMENTS OR WITHIN TEN (10) FEET OF ANY BUILDING AREAS SHOULD BE CONTINUALLY MONITORED BY A REPRESENTATIVE OF THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY THAT PROPER LIFT THICKNESS, MOISTURE CONDITION, AND COMPACTIVE EFFORT ARE MAINTAINED.
2. CONTRACTOR SHALL VERIFY ALL UTILITY AND CONDUIT SIZES AND LOCATIONS WITH THE ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
3. ALL BUILDING UTILITY SERVICES ARE TO BE STUBBED 5 FT. FROM THE BUILDING FOR CONNECTION BY INTERIOR CONTRACTOR.
4. ALL UTILITY TRENCHES PROPOSED WITHIN THE LIMITS OF EXISTING PAVEMENT AND WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE BACKFILLED TO SUBGRADE WITH GRANULAR BACKFILL TO A DISTANCE OF 5 FT BEYOND THE BACK OF CURB.
5. THE CITY OF OXFORD DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE RELOCATION, REPAIR, OR REPLACEMENT OF ANY OTHER UTILITY INSTALLED WITHIN 5 FT OF THE CENTERLINE OF ANY SANITARY SEWER MAIN OR WATER MAIN.
6. CONTRACTOR SHALL OBTAIN RIGHT OF WAY PERMIT FROM CITY OF OXFORD FOR ALL WORK PROPOSED WITHIN THE PUBLIC RIGHT OF WAY.

STORM SEWERS

1. ALL WORK AND MATERIALS ARE TO CONFORM TO THE 2019 EDITION OF ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS AND CITY OF OXFORD SPECIFICATIONS. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.
2. STORM SEWER PIPES DESIGNATED AS "STM" SHALL MEET THE MATERIAL & INSTALLATION REQUIREMENTS OF ODOT ITEM 603, TYPE B CONDUITS AND AS FOLLOWS:
   - 2.1. NON-REINFORCED CONCRETE PIPE PER ODOT SPECIFICATION 706.01
   - 2.2. REINFORCED CONCRETE CIRCULAR PIPE PER ODOT SPECIFICATION 706.02
   - 2.3. PRECAST REINFORCED CONCRETE BOX SECTIONS PER ODOT SPECIFICATION 706.05
   - 2.4. REINFORCED CONCRETE ELLIPTICAL CULVERT, STORM DRAIN, AND SEWER PIPE PER ODOT SPECIFICATION 706.04
   - 2.5. ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCHES WITH PAVED INVERT PER ODOT SPECIFICATIONS 707.01 OR 707.02
   - 2.6. CORRUGATED STEEL SPIRAL RIB CONDUITS PER ODOT SPECIFICATIONS 707.12
   - 2.7. CORRUGATED POLYETHYLENE SMOOTH LINED PIPE PER ODOT SPECIFICATION 707.33
   - 2.8. POLYVINYL CHLORIDE PROFILE WALL PIPE PER ODOT SPECIFICATION 707.42
   - 2.9. PIPE BEDDING AND TRENCH BACKFILL SHALL BE PER ODOT 603 AND STANDARD DRAWING DM-1.4 CONDUIT INSTALLATION. CONTRACTOR SHALL PROVIDE AN ALTERNATE BID ITEM TO PROVIDE STRUCTURAL BACKFILL FOR ALL TRENCHES TO PAVEMENT SUBGRADE.
3. ALL STORM STRUCTURES ARE ODOT TYPES UNLESS OTHERWISE INDICATED.
4. ALL CATCH BASINS SHALL BE EQUIPPED WITH HEAVY DUTY, BICYCLE SAFE GRATES CAPABLE OF CARRYING AN HS-25 LOADING, UNLESS OTHERWISE NOTED.
5. ANY EXISTING STORM SEWER CUT IN EXCAVATION WHICH DRAINS AN OFFSITE AREA MUST BE TIED INTO THE STORM SEWER SYSTEM.
6. ALL CATCH BASINS IN THE PAVEMENT OR CURB ARE TO HAVE A MINIMUM OF TWO FOUR (4) INCH PERFORATED UNDERDRAINS EXTENDING TWENTY (20) LINEAR FEET FROM THE CATCH BASIN. UNDERDRAINS SHALL BE PLACED ONE ON EACH SIDE OF THE STORM SEWER AND AS NEAR TO PERPENDICULAR TO THE STORM SEWER AS IS PRACTICAL WITHOUT INTERFERING WITH STORM PIPES SHOWN ON THE PLANS. SEE PAVEMENT UNDERDRAIN DETAIL C4.0.
7. AS THE INSTALLATION OF THE STORM SEWER PROGRESSES, EROSION CONTROL MEASURES SHALL BE PLACED AT INLET AND OUTLET OF SEWERS TO CONTROL THE SILT
8. SUMP LINE CONDUITS ARE TO BE SDR 35, ARMCO 2000, OR EQUIVALENT.
9. ALL JOINTS SHALL BE SOIL SEAL JOINTS UNLESS SPECIFICALLY NOTED ON THE PLANS.
10. DEFLECTION TESTING FOR STORM SEWERS AND CULVERTS SHALL BE AS PER THE REQUIREMENTS OF THE CITY OF OXFORD.
11. STORM WATER AND EXTRANEOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING SYSTEM DURING CONSTRUCTION. NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. STORM DRAINS, DIVERSION DITCHES, PUMPS ETC., SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.
12. ALL CATCH BASINS WITH A DEPTH GREATER THAN 4.0 FT SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF ODOT STANDARD 604.
13. ALL STORM SEWER SHALL HAVE A MAXIMUM MANNING'S ROUGHNESS COEFFICIENT OF 0.013.
14. ROOF DRAINS ARE TO BE PER ODOT 707.33, 707.42, OR 707.45.

SANITARY SEWERS

1. ALL WORK AND MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTION MANUAL.
2. ROOF DRAINS, FOUNDATION DRAINS, AND ALL OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
3. NO BUILDING SHALL BE CONNECTED TO A SEWER LATERAL UNTIL THE BUILDING IS UNDER ROOF.
4. SANITARY LATERAL SHALL BE SDR 35 OR SCHEDULE 40.
5. ALL SANITARY SEWER MANHOLES, CASTINGS, PIPE, ETC., SHALL CONFORM WITH CURRENT SPECIFICATIONS OF THE CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTION MANUAL.
6. SANITARY SEWER MATERIALS AND INSTALLATION TO BE AS PER THE CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTION MANUAL
7. CROSSINGS:
   WHENEVER A SANITARY SEWER AND WATER MAIN MUST CROSS, THE SEWER SHALL BE AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES MEASURED BETWEEN THE OUTSIDE PIPE WALLS, BELOW THE BOTTOM OF THE WATER MAIN. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18 INCH VERTICAL SEPARATION, THE WATER MAIN SHALL BE RELOCATED OR THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
   - 7.1. A SEWER PASSING OVER OR UNDER THE WATER MAIN SHALL BE ENCASED OR CONSTRUCTED OF MATERIALS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE WATER MAIN.
   - 7.2. THE SEWER CROSSING SHALL BE CONSTRUCTED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
   - 7.3. WHERE A WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.
8. ALL BUILDINGS TO BE SERVED BY THE PUBLIC SEWER SYSTEM SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM OF 4 FT OF VERTICAL SEPARATION BETWEEN THE PUBLIC SANITARY SEWER AT THE POINT OF CONNECTION AND THE LOWEST BUILDING LEVEL SERVED BY A GRAVITY SEWER CONNECTION. IN ADDITION, SAID BUILDING LEVEL SHALL BE AT LEAST 1 FT ABOVE THE LOWEST POINT OF FREE-OVERFLOW (NON-SEALED MANHOLE COVER) UPSTREAM OF ANY TREATMENT FACILITY OF WASTEWATER PUMPING FACILITY THAT RECEIVES THE DISCHARGE FROM SAID BUILDING. SAID MINIMUM SERVICE LEVELS SHALL BE RECORDED ON THE "AS-BUILT" PLANS FOR THE DEVELOPMENT WHICH WILL BE KEPT ON FILE IN THE OFFICE OF THE THE CITY OF OXFORD.
9. PROVIDE THE CITY OF OXFORD WITH A FORTY-EIGHT (48) HOUR NOTICE PRIOR TO THE START OF ANY CONSTRUCTION, INCLUDING SANITARY INSTALLATION BY CALLING (513) 524-5206.
10. SANITARY SEWER LATERALS, WHICH SHALL INCLUDE ALL PIPE AND APPURTENANCES FROM THE BUILDING TO THE PUBLIC SEWER MAIN, AND THE CONNECTION TO THE PUBLIC SEWER MAIN SHALL BE CONSIDERED PRIVATE AND THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN. THE CONNECTION TO THE SEWER MAIN WOULD BE ANY PIPING THAT EXTENDS OUT FROM THE MAIN BARREL OF THE SEWER MAIN.

WATER MAINS

1. ALL WATER WORK AND WATER MAIN MATERIALS INCLUDING PIPE, FITTINGS, VALVES, HYDRANTS, AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTIONS MANUAL.
2. ALL PUBLIC WATER MAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS, AND APPURTENANCES SHALL BE CLASS 53 DUCTILE IRON PER AWWA C-151.
3. PRIVATE MAINS AND APPURTENANCES SHALL MEET OR EXCEED THE REQUIREMENTS OF THE THE CITY OF OXFORD.
4. FIRE DEPARTMENT CONNECTION (STORTZ CONNECTION) SHALL BE WITHIN 75 FT. OF A PUBLIC FIRE HYDRANT OR A FIRE HYDRANT OFF OF THE MAIN BETWEEN THE PUBLIC MAIN AND THE METER PIT.
5. FIRE DEPARTMENT CONNECTION LINE SHALL TIE INTO THE FIRE SUPPRESSION SYSTEM ON THE BUILDING SIDE OF THE PUMP IF A PUMP IS INSTALLED.
6. NO PART OF ANY FIRE HYDRANT SETTING SHALL BE CLOSER THAN FIVE (5) FEET FROM ANY INLET, DRIVEWAY, PARKING LOT, UTILITY POLE, OR GUY WIRE ANCHOR.
7. WATER MAINS SHALL MAINTAIN A MINIMUM COVER OF FOUR (4) FEET.
8. BUILDING WATER SERVICES SHALL MAINTAIN 3.5 FT TO 4.0 FT OF COVER.
9. ALL WATER MAIN VALVES SHALL HAVE A MINIMUM DEPTH OF 2.5 FT. AND MAXIMUM DEPTH OF 4.0 FT. FROM PROPOSED GRADE TO THE TOP OF THE VALVE OPERATING NUT.
10. A MINIMUM CLEAR DISTANCE OF TEN (10) FEET HORIZONTAL OR EIGHTEEN (18) INCHES VERTICAL SHALL BE MAINTAINED BETWEEN SANITARY AND/OR STORM SEWERS AND WATER MAINS.
11. SANITARY AND STORM SEWERS THAT CROSS WATER MAINS SHALL BE LOCATED SUCH THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
12. ALL WATER MAINS SHALL BE PROVIDED WITH JOINT RESTRAINT AT ALL TEES, HORIZONTAL AND VERTICAL BENDS, ETC...WHETHER SHOWN ON THE PLAN VIEW OR NOT. JOINT RESTRAINT SHALL MEET THE REQUIREMENTS OF THE CITY OF OXFORD'S WATER AND SANITARY SEWER IMPROVEMENT SPECIFICATIONS AND BACKFLOW CROSS CONNECTION MANUAL. (SEE WATER MAIN RESTRAINED JOINT LOCATION CHART ON SHEET C4.1)
13. SERVICE PIPING SMALLER THAN THREE (3) INCHES SHALL BE SEAMLESS COPPER FLEXIBLE WATER TUBING, ASTM B 88, TYPE K, PRESSURE CLASS 250.
   - 13.1. FITTINGS SHALL BE COMPRESSION STYLE FOR CTS TUBING, CONSULT GOVERNING AGENCY FOR A LISTING OF ACCEPTABLE MANUFACTURERS AND PRODUCTS.
   - 13.2. COUPLINGS WITH SET SCREWS OR GRIP RINGS WILL NOT BE ACCEPTABLE.
   - 13.3. WATER SERVICE TUBING SHALL BE BEDDED SIX (6) INCHES ABOVE AND BELOW WITH SAND OR OTHER NON-COMPACTIBLE MATERIAL APPROVED BY THE GOVERNING AGENCY.
14. CITY OF OXFORD WATER DEPARTMENT SHALL ESTABLISH PROCEDURES FOR REPAIRS TO WATER MAIN OR WATER SERVICES DAMAGED.
15. ALL WATER METER PITS SHALL CONFORM TO THE MATERIALS AND SPECIFICATIONS OF THE GOVERNING AGENCY.

GRADING NOTES

A. ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (2023) AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE GOVERNING AGENCIES. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

B. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS.

C. FORTY-EIGHT (48) HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE OHIO UTILITY PROTECTION SERVICE (OUPS) AND ALL OTHER AGENCIES WHICH MAY HAVE UNDERGROUND UTILITIES INVOLVED IN THIS PROJECT AND ARE NOT MEMBERS OF OHIO UNDERGROUND PROTECTION, INC.

D. CONTRACTOR AND OWNER SHALL VERIFY AND ACCEPT ALL QUANTITIES PRIOR TO BEGINNING CONSTRUCTION.

E. CONTRACTOR SHALL VERIFY THAT COORDINATES, IF USED, MATCH PLAN DIMENSIONS. WHEN IN CONFLICT, THE PLAN DIMENSIONS SHALL GOVERN OVER COORDINATES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

F. UNLESS OTHERWISE NOTED, ALL CONSTRUCTION DETAILS SHALL CONFORM WITH THE "STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION".

G. EXISTING SITE SURVEY, TOPOGRAPHY, AND SUBSURFACE CONDITIONS: EXISTING CONDITIONS PRESENTED IN DRAWING, REPORT OR SPECIFICATION FORM ARE BELIEVED ACCURATE WITHIN NORMAL INDUSTRY TOLERANCES BUT ARE NOT GUARANTEED. INVESTIGATE, SURVEY, CONFIRM AND VERIFY ALL CONDITIONS BEARING ON THE WORK BY ANY MEANS NECESSARY BEFORE STARTING ANY WORK THAT CHANGES EXISTING CONDITIONS. REPORT ANY UNACCEPTABLE DISCREPANCIES TO THE ENGINEER IN WRITING BEFORE BEGINNING OPERATIONS
   - G.A. WRITTEN CLAIMS OF DIFFERENCE SHALL BE ACCOMPANIED BY SUBSTANTIATING EVIDENCE. CLAIMS OF DIFFERENCE SHALL BE RESOLVED, INCLUDING DETERMINATION OF QUANTITIES AND COSTS AND METHODS OF CONTRACT MODIFICATION, BEFORE WORK THAT ALTERS SUCH EXISTING CONDITIONS IS STARTED.
   - G.B. INITIATION OF SITE-CLEARING, SOIL-MOVING OPERATIONS, DEMOLITION OR OTHER ACTIVITY THAT ALTERS EXISTING CONDITIONS SHALL BE EVIDENCE THAT CONTRACTOR HAS MADE ALL INVESTIGATIONS AND EVALUATIONS IT DEEMS NECESSARY AND HAS ACCEPTED ALL EXISTING CONDITIONS PRESENT WHETHER OR NOT THEY CONFORM EXACTLY TO THE DOCUMENTS.
   - G.C. WITHOUT ADVANCE WRITTEN NOTIFICATION OF UNACCEPTABLE DISCREPANCY, NO CLAIM FOR EXTRA WILL BE CONSIDERED FOR A CLAIM OF DIFFERENCE BETWEEN DOCUMENTS AND ACTUAL CONDITIONS AFTER THE CONTRACTOR HAS ALTERED EXISTING CONDITIONS.

H. BACKFILL OF ALL UTILITY EXCAVATIONS IN STRUCTURAL AREAS INCLUDING UNDER PAVEMENTS OR WITHIN TEN (10) FEET OF ANY BUILDING AREAS SHOULD BE CONTINUALLY MONITORED BY A REPRESENTATIVE OF THE PROJECT GEOTECHNICAL ENGINEER TO VERIFY AND DOCUMENT THAT PROPER LIFT THICKNESS, MOISTURE CONDITION, AND COMPACTIVE EFFORT ARE MAINTAINED. THE GRADING PLAN IS TO BE USED FOR GRADING PURPOSES ONLY.

I. SPOT ELEVATIONS REPRESENT FINISH PAVEMENT GRADE. CONTRACTOR SHALL REVIEW THE FOUNDATION PLAN TO DETERMINE BUILDING SUBGRADE ELEVATIONS.

J. CONTRACTOR AND OWNER SHALL AGREE TO ALL EXCAVATION AND EMBANKMENT QUANTITIES PRIOR TO CONSTRUCTION.

K. CONTRACTOR SHALL REMOVE ALL TREES AND CLEAN ALL AREAS AS DETERMINED BY THE ENGINEER OR ARCHITECT TO PERFORM ALL GRADING AND UTILITY WORK IN ACCORDANCE WITH THE DRAWINGS, GENERAL NOTES, AND PROJECT SPECIFICATIONS. RESERVE MULCH FOR SOIL EROSION MULCHING AS NECESSARY.

L. THE PROJECT HAS BEEN DESIGNED TO CONTROL EROSION AND PREVENT DAMAGE TO OTHER PROPERTY. ALL STRIPPING, EARTHWORK, AND REGRADING SHALL BE PERFORMED TO MINIMIZE EROSION. NATURAL VEGETATION SHALL BE RETAINED WHEREVER POSSIBLE. THE PROPOSED PLAN WILL ALLOW MOST ERODED MATERIALS TO BE RETAINED ON SITE.

M. CONTRACTOR SHALL SETUP AN ONSITE PRE-CONSTRUCTION MEETING WITH OWNER, PROJECT GEOTECHNICAL ENGINEER, EARTHWORK CONTRACTOR, AND SITE CIVIL ENGINEER PRIOR TO BEGINNING CONSTRUCTION.

N. THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A QUALIFIED GEOTECHNICAL ENGINEERING FIRM TO OBSERVE, GUIDE AND INSPECT ALL EARTHWORK OPERATIONS. ALL EMBANKMENT CONSTRUCTION SHALL BE TESTED TO VERIFY PROPER COMPACTION DENSITY. COMPACTION REPORTS SHALL BE PROVIDED TO THE OWNER.

O. CONTRACTOR SHALL SETUP AN ONSITE PRE-CONSTRUCTION MEETING WITH DEVELOPER, PROJECT GEOTECHNICAL ENGINEER, EARTHWORK CONTRACTOR, BUTLER COUNTY ENGINEER'S OFFICE AND SITE CIVIL ENGINEER PRIOR TO BEGINNING CONSTRUCTION.

P. EXCESSIVELY ORGANIC TOPSOIL AND LOOSE MATERIALS SHALL BE STRIPPED FROM THE CONSTRUCTION AREAS AND WASTED OR STOCKPILED. TOPSOIL THICKNESS MAY VARY ACROSS THE SITE AND THE EXACT DEPTH OF STRIPPING SHOULD BE DETERMINED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER IN THE FIELD AT THE TIME OF THE STRIPPING OPERATIONS.

Q. AFTER STRIPPING OF THE TOPSOIL HAS BEEN PERFORMED, THE EXPOSED SUBGRADE SHALL BEPROOFROLLED WITH APPROVED EQUIPMENT TO IDENTIFY POCKETS OF SOFT UNSUITABLE MATERIALS. UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER, UNSUITABLE MATERIALS SHOULD BE REMOVED AND REPLACED WITH A WELL-COMPACTED MATERIAL.

E. SPECIFICATIONS FOR COMPACTED FILLS AND BACKFILLS: ALL FILLS SHALL BE FORMED FROM MATERIAL FREE OF VEGETABLE MATTER, RUBBISH, LARGE ROCK, AND OTHER DELETERIOUS MATERIAL. PRIOR TO PLACEMENT OF FILL, A SAMPLE OF THE PROPOSED FILL MATERIAL SHOULD BE SUBMITTED TO THE SOIL ENGINEER FOR HIS APPROVAL. THE FILL MATERIAL SHOULD BE PLACED IN LAYERS NOT TO EXCEED EIGHT (8) INCHES IN LOOSE THICKNESS AND SHOULD BE SPRINKLED WITH WATER AS REQUIRED TO SECURE SPECIFIED COMPACTIONS. EACH LAYER SHOULD BE UNIFORMLY COMPACTED BY MEANS OF SUITABLE EQUIPMENT OF THE TYPE REQUIRED BY THE MATERIALS COMPOSING THE FILL. UNDER NO CIRCUMSTANCES SHOULD A BULLDOZER OR SIMILAR TRACKED VEHICLES BE USED AS COMPACTING EQUIPMENT. MATERIAL CONTAINING AN EXCESS OF WATER SO THE SPECIFIED COMPACTION LIMITS CANNOT BE ATTAINED SHOULD BE SPREAD AND DRIED TO A MOISTURE CONTENT THAT WILL PERMIT PROPER COMPACTION. ALL FILL INSIDE THE BUILDING SHALL BE COMPACTED TO 100% OF MAXIMUM DENS DENSITY. ALL FILL OUTSIDE OF THE BUILDING SHOULD BE COMPACTED TO 98% OF THE MAXIMUM DENSITY OBTAINED IN ACCORDANCE WITH ASTM DENSITY TEST D 698. FOR PROPER COMPACTION OF THE SOILS, MOISTURE CONDITIONING TO WITHIN APPROXIMATELY –2% TO +2% OF OPTIMUM MOISTURE CONTENT SHOULD BE ACHIEVED WITH SOILS. SHOULD THE RESULTS OF THE IN-PLACE DENSITY TESTS INDICATE THAT THE SPECIFIED COMPACTION LIMITS ARE NOT OBTAINED, THE AREAS REPRESENTED BY SUCH TESTS SHOULD BE REWORKED AND RETESTED AS REQUIRED UNTIL THE SPECIFIED LIMITS ARE REACHED.

F. A PROOFROLL OF ALL PAVEMENT SUBGRADES SHALL BE PERFORMED AND WITNESSED BY THE GEOTECHNICAL ENGINEER.

G. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED ON ALL GRASS AREAS UNLESS SPECIFIED OTHERWISE IN THE LANDSCAPE DRAWINGS. THE LAST 1' OF ALL FILLS OUTSIDE OF PAVEMENT AND BUILDING AREAS MAY BE TOPSOIL UNLESS OTHERWISE NOTED. ALL TOPSOIL FILLS SHALL BE BENCHED OR KNIT INTO FILL SLOPES AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

H. THE CITY OF OXFORD REQUIRES AN AS-BUILT VOLUME CERTIFICATION OF ALL DETENTION/RETENTION BASINS. CONTRACTOR SHOULD CONTACT THE SITE CIVIL ENGINEER TO PERFORM AS-BUILT VOLUME CERTIFICATION PRIOR TO FINAL GRADING AND SEEDING OF BASINS..

Plot time: Apr 22, 2025 - 2:05pm
Drawing name: J:\2024\24-0042\CV\DWG\24-0042 CD.dwg - Layout Tab: Layout1

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Item	Revision Description	Date	Drwn:	Chk:
1	REVISED PER OWNER REVIEW	02-28-25	GJK	

TOPSS: TALAWANDA OXFORD
PANTRY & SOCIAL SERVICES
SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

GENERAL NOTES

bayer becker
www.bayerbecker.com
110 S. College Avenue, Suite 101
Oxford, OH 45056 - 513.523.4270

Drawing: 24-0042 CD
Drawn by: SJW
Checked By: GJK
Issue Date: 02-14-25
Sheet: C1.1

BENCHMARK
Cross Notch
N=563039.681
E=1329802.448
Elev=980.91

BENCHMARK
Cross Notch
N=562913.137
E=1329604.591
Elev=984.43

PAVEMENT, CURB AND WALK TO BE OPEN CUT FOR SANITARY LATERAL CONSTRUCTION SAWCUT ALL EDGES

PAVEMENT, CURB AND WALK TO BE OPEN CUT FOR WATER SERVICE CONSTRUCTION SAWCUT ALL EDGES

PAVEMENT AND CURB TO BE OPEN CUT FOR FIRE HYDRANT CONSTRUCTION SAWCUT ALL EDGES

Reaghs Way
(Public)

College Corner Pike (US #27)
(Public)

N46°30'16"W 107.82'

S40°55'22"W 95.79'

=24°26'45"
R=225.00'
L=96.00'
Ch=S53°09'04"W
95.27'

S24°37'33"E 98.60'

S02°52'42"W
16.59'

S04°54'42"W 166.64'

S87°33'00"E 48.57'

S88°21'25"E 127.49'

N02°43'42"E 334.39'

1.4774 ACRES
4356 S.F.
The Pines Subdivision
P.Bk. 2989, Pg. A
TOPSS
O.R. 10086, Pg. 978
Lot 3285
H4100-003-000-014

HIWOO Real Estate, LLC
O.R. 9685, Pg. 397
City Lot 1953
H4100-029-000-012

Lot 3281
Lot 3282
Lot 3283
Lot 3284

Ex. 1 Story Conc. Building
Ex. 1 Story Conc. Building
Ex. Steps to Lower Level
Ex. Block Wall
Ex. Covered Conc. Porch
Ex. Conc. Walk
Ex. Asphalt Parking Lot
Ex. Flower Garden
Ex. Garden
Ex. Shed
Ex. Chainlink Fence
Ex. Wood Fence
Ex. Path

SAWCUT EXISTING CURB
EXISTING CURB TO BE REMOVED
SAWCUT EX WALK
SAWCUT PAVEMENT
REMOVE EX. CURB
REMOVE EX. STRIPING
REMOVE EX. CATCH BASIN
REMOVE EX. SHED
REMOVE EX. FENCE
REMOVE EX. TREE
EXISTING STORM TO BE REMOVED
EXISTING GAS TO BE RELOCATED
CLEARING LIMITS

Ex. 30' Building Setback P.E. 2989, Pg. A
Ex. 25' Building Setback
Ex. 15' Utility Ease. P.E. 2989, Pg. A
Ex. 10' Utility Ease. P.E. 2989, Pg. A

DEMOLITION LEGEND

EXISTING CONCRETE CURB, CONCRETE WALK, CONCRETE PAVEMENT, AND ASPHALT PAVEMENT TO BE REMOVED

EXISTING TREE TO BE REMOVED

Basis of Bearing:
State Plane NAD83 (2011)
0 20 30
SCALE: 1" = 20'

Know what's **below.**
Call before you dig.

LOCATION OF ALL EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION

Item	Revision Description	Date	Drawn	Chk
1	REVISED PER OWNER REVIEW	02-28-25	GJK	GJK
2	REVISED PER CITY COMMENTS	04-22-25	SJW	

STATE OF OHIO
GREGORY J. KOCH
E-69324
REGISTERED
PROFESSIONAL ENGINEER
4/22/25

TOPSS: TALAWANDA OXFORD PANTRY & SOCIAL SERVICES

SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

EXISTING CONDITION AND DEMOLITION PLAN

bayer becker
www.bayerbecker.com
110 S. College Avenue, Suite 101
Oxford, OH 45056 - 513.523.4270

Drawing: 24-0042 CD
Drawn by: SJW
Checked By: GJK
Issue Date: 02-14-25
Sheet: C2.0

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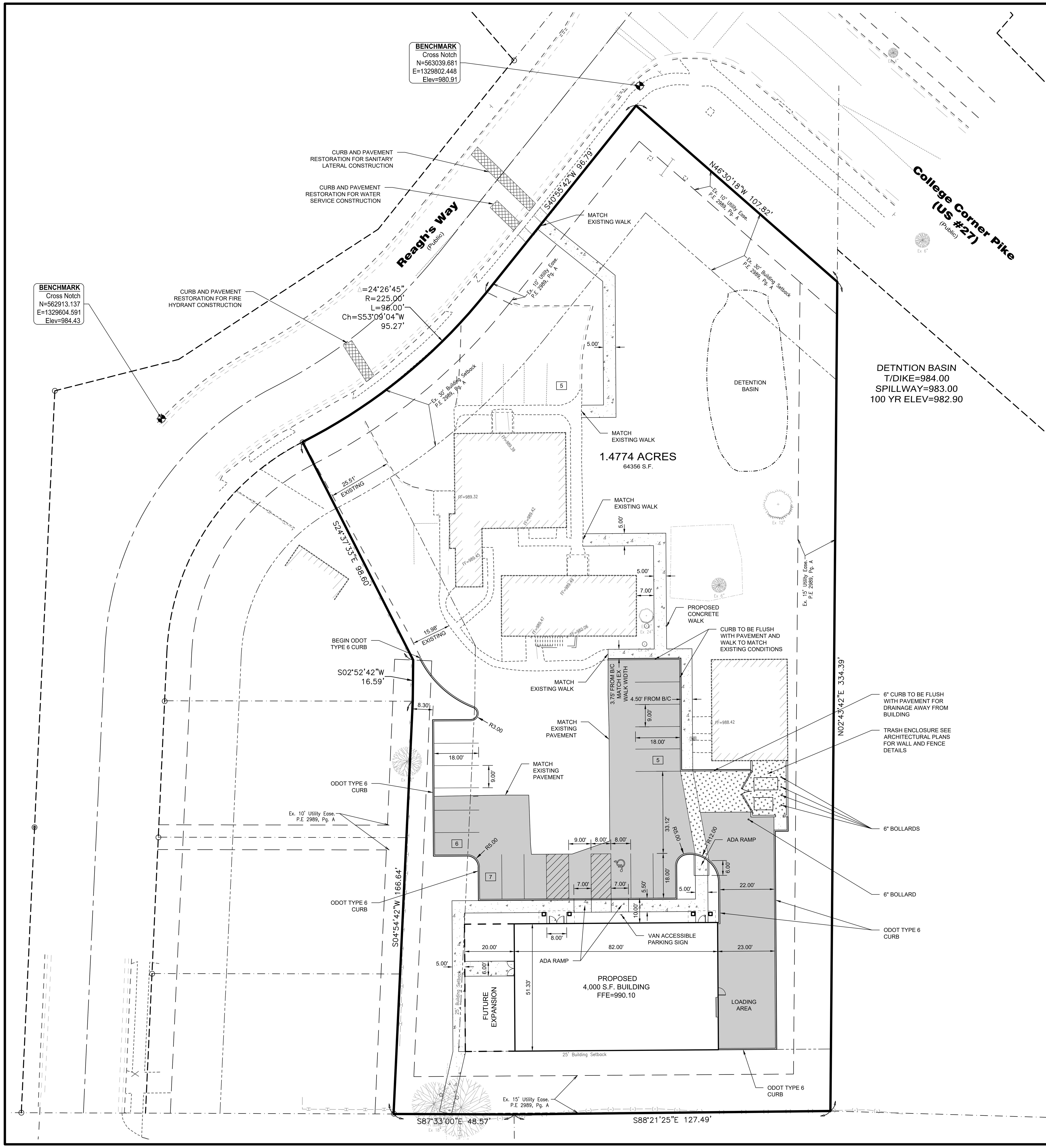
Plot time: Apr 22, 2025 - 2:04pm
Drawing name: J:\2024\24-0042\CV\DWG\24-0042 CD.dwg - Layout Tab: Layout1


BENCHMARK
Cross Notch
N=563039.681
E=1329802.448
Elev=980.91
BENCHMARK
Cross Notch
N=562913.137
E=1329604.591
Elev=984.43
CURB AND PAVEMENT RESTORATION FOR SANITARY LATERAL CONSTRUCTION
CURB AND PAVEMENT RESTORATION FOR WATER SERVICE CONSTRUCTION
CURB AND PAVEMENT RESTORATION FOR FIRE HYDRANT CONSTRUCTION
Reagh's Way
(Public)
College Corner Pike
(US #27)
(Public)
S40°53'42"W 96.79'
N46°30'18"W 107.82'
=24°26'45"
R=225.00'
L=96.00'
Ch=S53°09'04"W
95.27'
MATCH EXISTING WALK
DETNTION BASIN
T/DIKE=984.00
SPILLWAY=983.00
100 YR ELEV=982.90
DETENTION BASIN
1.4774 ACRES
64356 S.F.
S24°37'33"E 98.60'
N02°43'42"E 334.39'
S02°52'42"W
16.59'
S04°54'42"W 166.64'
S87°33'00"E 48.57'
S88°21'25"E 127.49'
BEGIN ODOT TYPE 6 CURB
ODOT TYPE 6 CURB
PROPOSED CONCRETE WALK
CURB TO BE FLUSH WITH PAVEMENT AND WALK TO MATCH EXISTING CONDITIONS
MATCH EXISTING PAVEMENT
6" CURB TO BE FLUSH WITH PAVEMENT FOR DRAINAGE AWAY FROM BUILDING
TRASH ENCLOSURE SEE ARCHITECTURAL PLANS FOR WALL AND FENCE DETAILS
6" BOLLARDS
6" BOLLARD
ADA RAMP
VAN ACCESSIBLE PARKING SIGN
PROPOSED
4,000 S.F. BUILDING
FFE=990.10
FUTURE EXPANSION
LOADING AREA
25' Building Setback
Ex. 10' Utility Ease.
P.E 2989, Pg. A
Ex. 15' Utility Ease.
P.E 2989, Pg. A
Ex. 30' Building Setback
P.E 2989, Pg. A

LEGEND

	CONCRETE WALK
	ASPHALT PAVEMENT
	CONCRETE PAVEMENT
XX	PARKING COUNT

Basis of Bearing:
State Plane NAD83 (2011)

0 20 30
SCALE: 1" = 20'

811
Know what's below.
Call before you dig.

LOCATION OF ALL EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION

Plot time: Apr 22, 2025 - 3:09pm
Drawing name: J:\2024\24-0042\CIVIL\DWG\24-0042 CD.dwg - Layout Tab: Layout1

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STATE OF OHIO
GREGORY J. KOCH
E-69324
REGISTERED
PROFESSIONAL ENGINEER
4/22/25

Item	Revision Description	Date	Drwn:	Chk:
1	REVISED PER OWNER REVIEW	02-28-25	GJK	
2	REVISED PER CITY COMMENTS	04-22-25	SJW	GJK

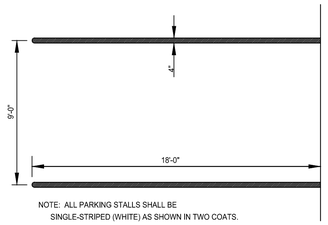
TOPSS: TALAWANDA OXFORD PANTRY & SOCIAL SERVICES

SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

SITE LAYOUT PLAN

bayer becker
www.bayerbecker.com
110 S. College Avenue, Suite 101
Oxford, OH 45056 - 513.523.4270

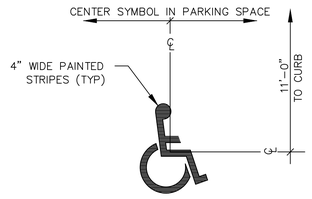
Drawing: 24-0042 CD
Drawn by: SJW
Checked By: GJK
Issue Date: 02-14-25
Sheet: C3.0



NOTE: ALL PARKING STALLS SHALL BE SINGLE-STRIPED (WHITE) AS SHOWN IN TWO COATS.

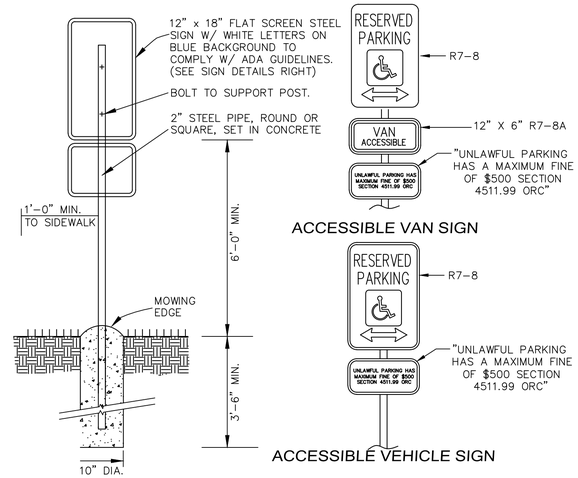
STANDARD STRIPING DETAIL

NOT TO SCALE



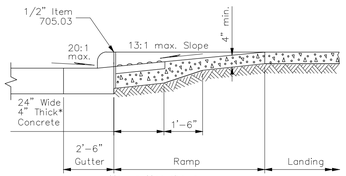
ADA SYMBOL DETAIL

NOT TO SCALE

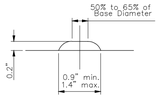


ADA ACCESSIBLE SIGN DETAILS

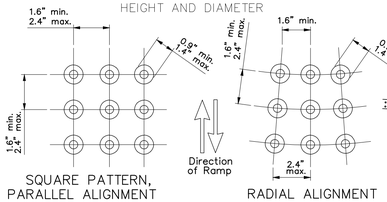
NOT TO SCALE



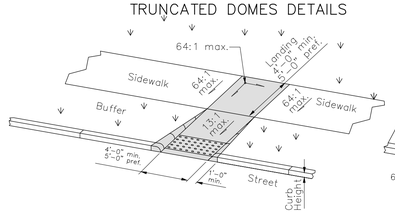
SECTION A-A
NORMAL DETAIL



HEIGHT AND DIAMETER



TRUNCATED DOMES DETAILS

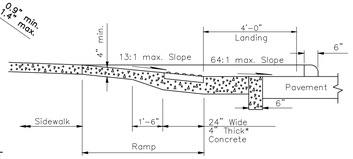


Type A2 (Perpendicular with returned curb)

PERPENDICULAR CURB RAMP DETAILS

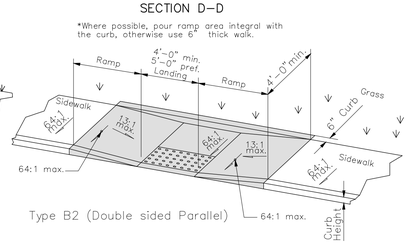
NOT TO SCALE

DOME ALIGNMENT ON RADIUSED CURB



SECTION D-D

*Where possible, pour ramp area integral with the curb, otherwise use 6" thick walk.



Type B2 (Double sided Parallel)

PARALLEL CURB RAMP DETAILS

NOT TO SCALE

CURB RAMP NOTES

DRAINAGE: Contractor is to ensure the base of each constructed curb ramp allows for proper drainage, without exceeding allowable cross slope or ramp slopes. Vertical change in level exceeding ¼" between the 1) pavement and gutter, and 2) gutter and ramp, are not allowed.

SURFACE TEXTURE: Texture concrete surfaces by coarse brooming transverse to the ramp slopes to be rougher than the adjacent walk.

The edge of the curb shall be flush with the edge of the adjacent pavement and gutter and surface slopes that meet grade breaks shall also be flush.

DETECTABLE WARNINGS NOTES

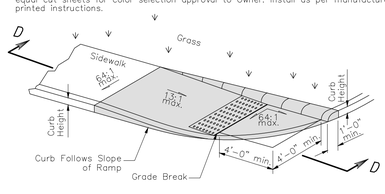
GENERAL: Detectable Warnings are a distinctive surface pattern of truncated domes which are detectable by cane or underfoot to alert people with vision impairments of their approach to streets and hazardous drop-offs.

PLACEMENT: Detectable warnings are to be installed at any location where pedestrians might cross paths with vehicular traffic lanes, such as the base of curb ramps or at blended curbs. A 24" strip of domes is to be installed for the full width of the ramp or walk. See plan locations of curb ramps.

The depth of concrete underneath detectable warning products shall be a minimum of 4". See SECTION A.

ALIGNMENT: Truncated domes should be aligned with the primary direction of the ramp as shown on the DETECTABLE WARNING ALIGNMENT Detail. Normally the detectable warnings should be flush with the back of the curb, but in skewed conditions at least one corner of the 24" strip should be adjacent to the back of curb. For non-standard layouts, detectable warning materials may have to be mitered and placed segmentally.

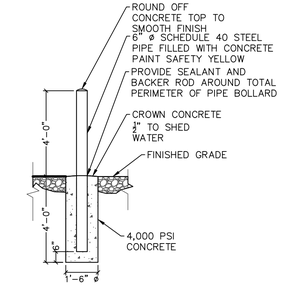
PRODUCTS & COLORS: Color of the detectable warnings should contrast with surrounding concrete walk and ramp. Black is not an acceptable color. Contractor to submit Armor-Tile Detectable/Tactile Warning Surface Cast In Place Tile or approved equal cut sheets for color selection approval to Owner. Install as per manufacturer's printed instructions.



Type B3 (Single sided Parallel)

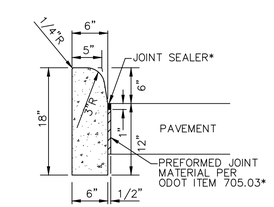
PARALLEL CURB RAMP DETAILS

NOT TO SCALE



BOLLARD DETAIL

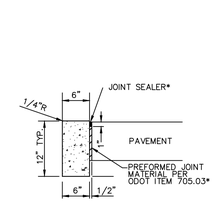
NOT TO SCALE



O.D.O.T. TYPE 6 CURB DETAIL

NOT TO SCALE

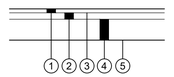
*NOTE: EXPANSION JOINT MATERIAL & JOINT SEALER ARE NOT REQUIRED FOR THAT PORTION OF THE CURB WHICH IS ADJACENT TO A FLEXIBLE TYPE PAVEMENT. BOTH MATERIALS ARE REQUIRED FOR THE FULL HEIGHT OF RIGID PAVEMENT AND CONCRETE BASES.



FLUSH CURB DETAIL

NOT TO SCALE

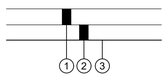
*NOTE: EXPANSION JOINT MATERIAL & JOINT SEALER ARE NOT REQUIRED FOR THAT PORTION OF THE CURB WHICH IS ADJACENT TO A FLEXIBLE TYPE PAVEMENT. BOTH MATERIALS ARE REQUIRED FOR THE FULL HEIGHT OF RIGID PAVEMENT AND CONCRETE BASES.



ASPHALT PAVEMENT

NOT TO SCALE

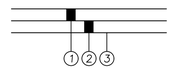
1. ITEM 448 - 1-1/2" SURFACE COURSE
2. ITEM 448 - 2-1/2" INTERMEDIATE COURSE
3. ITEM 407 - TACK COAT
4. ITEM 304 - 8" AGGREGATE BASE
5. ITEM 203 - SUBGRADE COMPACTION



CONCRETE PAVEMENT

NOT TO SCALE

1. ITEM 452 - 5" P.C.C. PAVEMENT
2. ITEM 304 - 6" AGGREGATE BASE
3. ITEM 203 - SUBGRADE COMPACTION



CONCRETE WALK

NOT TO SCALE

1. ITEM 608 - 4" CONCRETE WALK
2. ITEM 304 - 4" AGGREGATE BASE
3. ITEM 203 - SUBGRADE COMPACTION

STATE OF OHIO
GREGORY J. KOCH
E-69324
REGISTERED
PROFESSIONAL ENGINEER
2/27/25

Item	Revision Description	Date	Drawn	Chk

TOPSS: TALAWANDA OXFORD PANTRY & SOCIAL SERVICES
SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

SITE DETAILS

bayer becker
www.bayerbecker.com
110 S. Cedar Street, Suite 101
Oxford, OH 45056 - 513.523.4270

Drawing: 24-0042 CD
Drawn by: SJW
Checked By: GJK
Issue Date: 02-14-25
Sheet: C3.1

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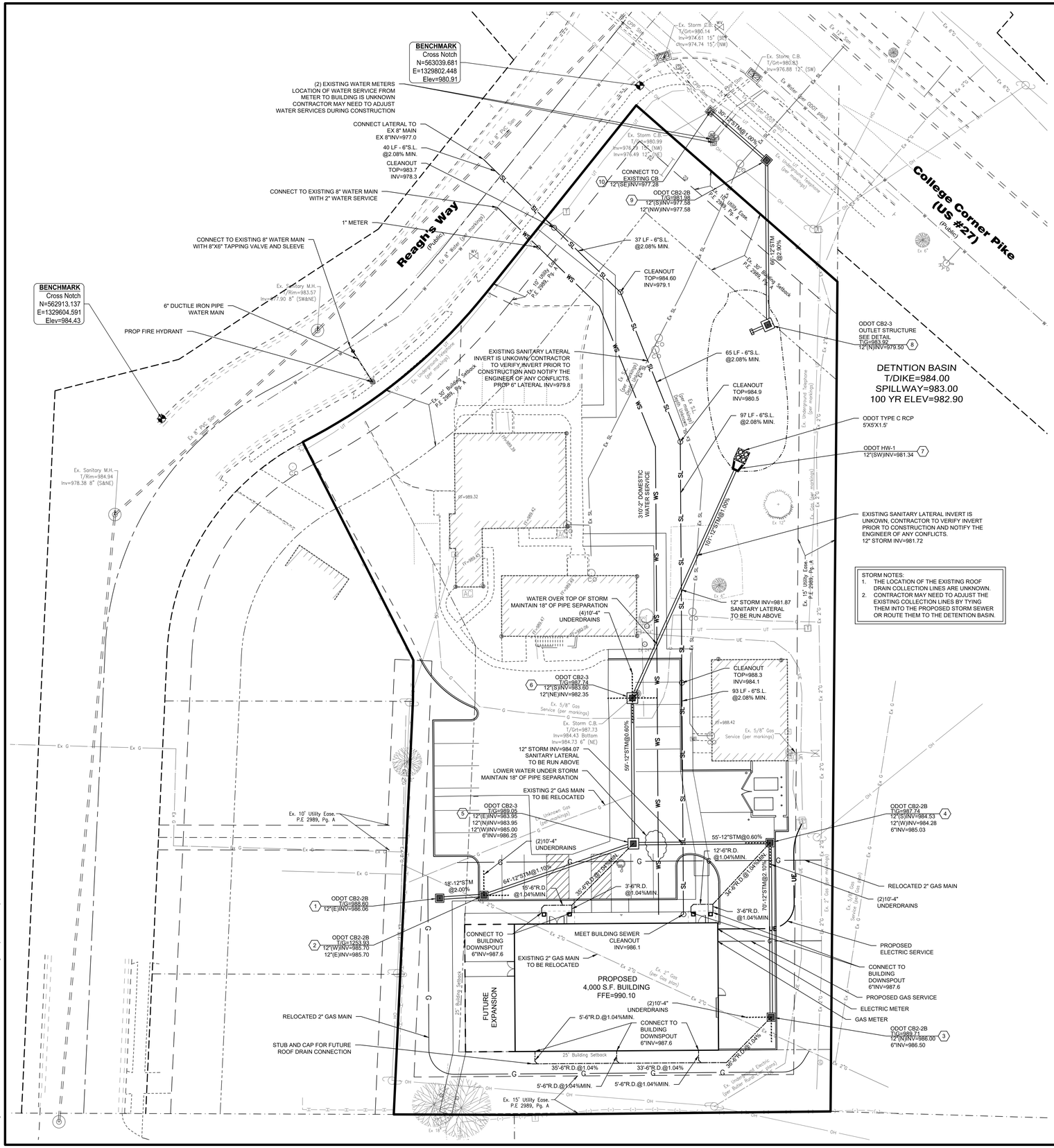
Plot time: Feb 27, 2025 - 11:22am
Drawing name: J:\2024\24-0042\CV\DWG\24-0042 CD.dwg - Layout Tab: Layout1



STORM NOTES:
1. THE LOCATION OF THE EXISTING ROOF DRAIN COLLECTION LINES ARE UNKNOWN.
2. CONTRACTOR MAY NEED TO ADJUST THE EXISTING COLLECTION LINES BY TYING THEM INTO THE PROPOSED STORM SEWER OR ROUTE THEM TO THE DETENTION BASIN.

PAVEMENT UNDERDRAIN DETAIL

NOT TO SCALE

OUTLET STRUCTURE DETAILS

NOT TO SCALE

Basis of Bearing:
State Plane NAD83 (2011)

SCALE: 1" = 20'

811
Know what's below.
Call before you dig.

LOCATION OF ALL EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION

Plot time: Apr 22, 2025 - 2:05pm
Drawing name: J:\2024\24-0042\CV\DWG\24-0042 CD.dwg - Layout Tab: Layout1

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GREGORY
J. KOCH
E-69324
4/22/25

Item	Revision Description	Date	Drwn:	Chk:
1	REVISED PER OWNER REVIEW	02-28-25	GJK	
2	REVISED PER CITY COMMENTS	04-22-25	SJW	GJK

TOPSS: TALAWANDA OXFORD PANTRY & SOCIAL SERVICES

SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
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UTILITY PLAN

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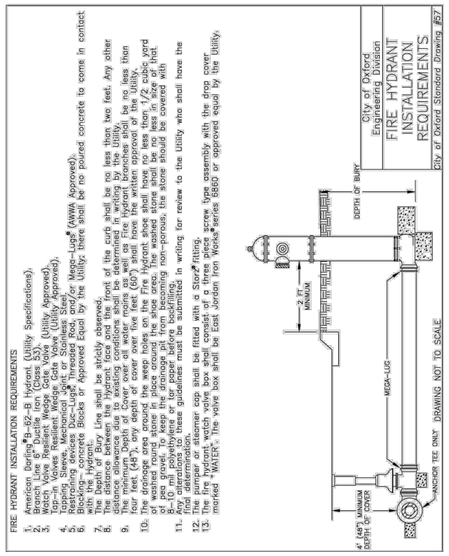
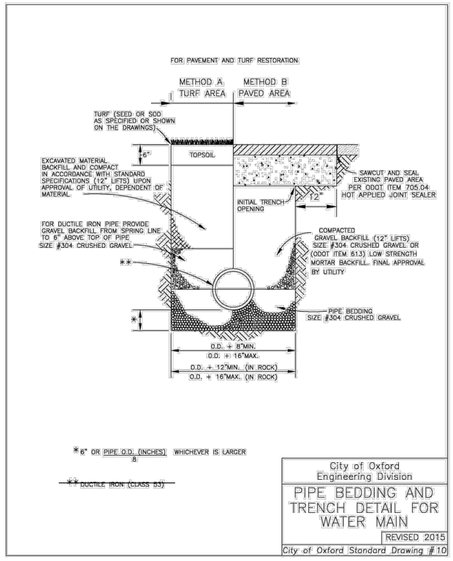
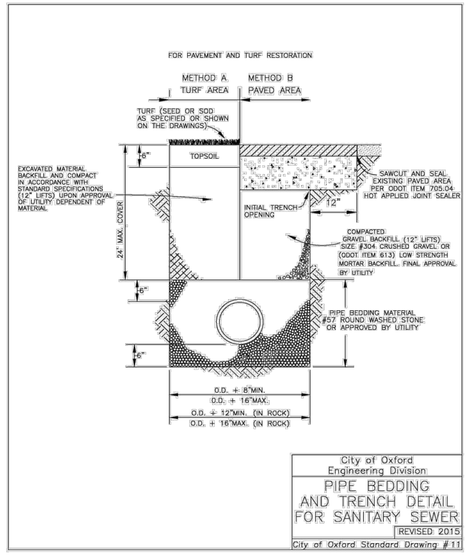


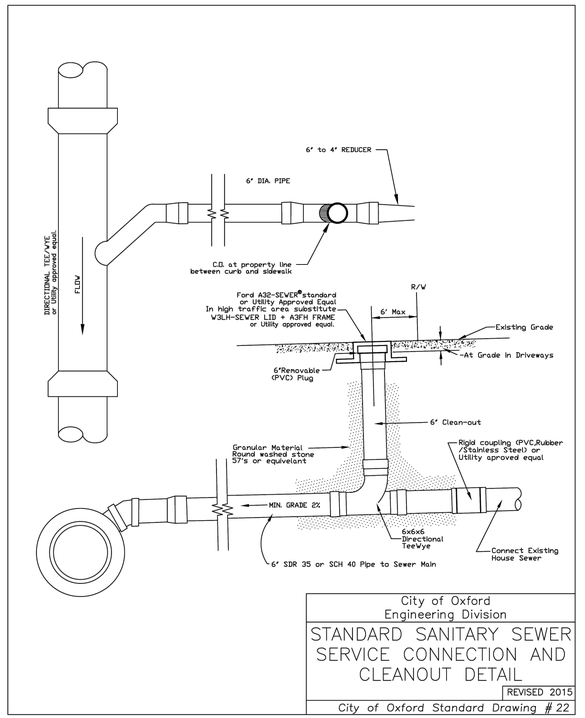
Revised 2005/2010/2016/2022

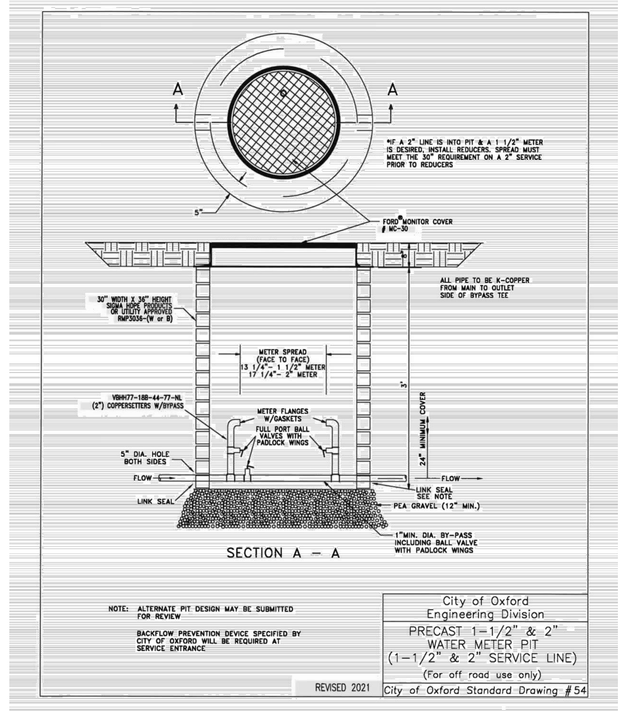


Revised 2005/2010/2016/2022



Revised 2005/2010/2016/2022





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SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

UTILITY DETAILS

bayer becker
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Drawing: 24-0042 CD
Drawn by: SJW
Checked By: GJK
Issue Date: 02-14-25
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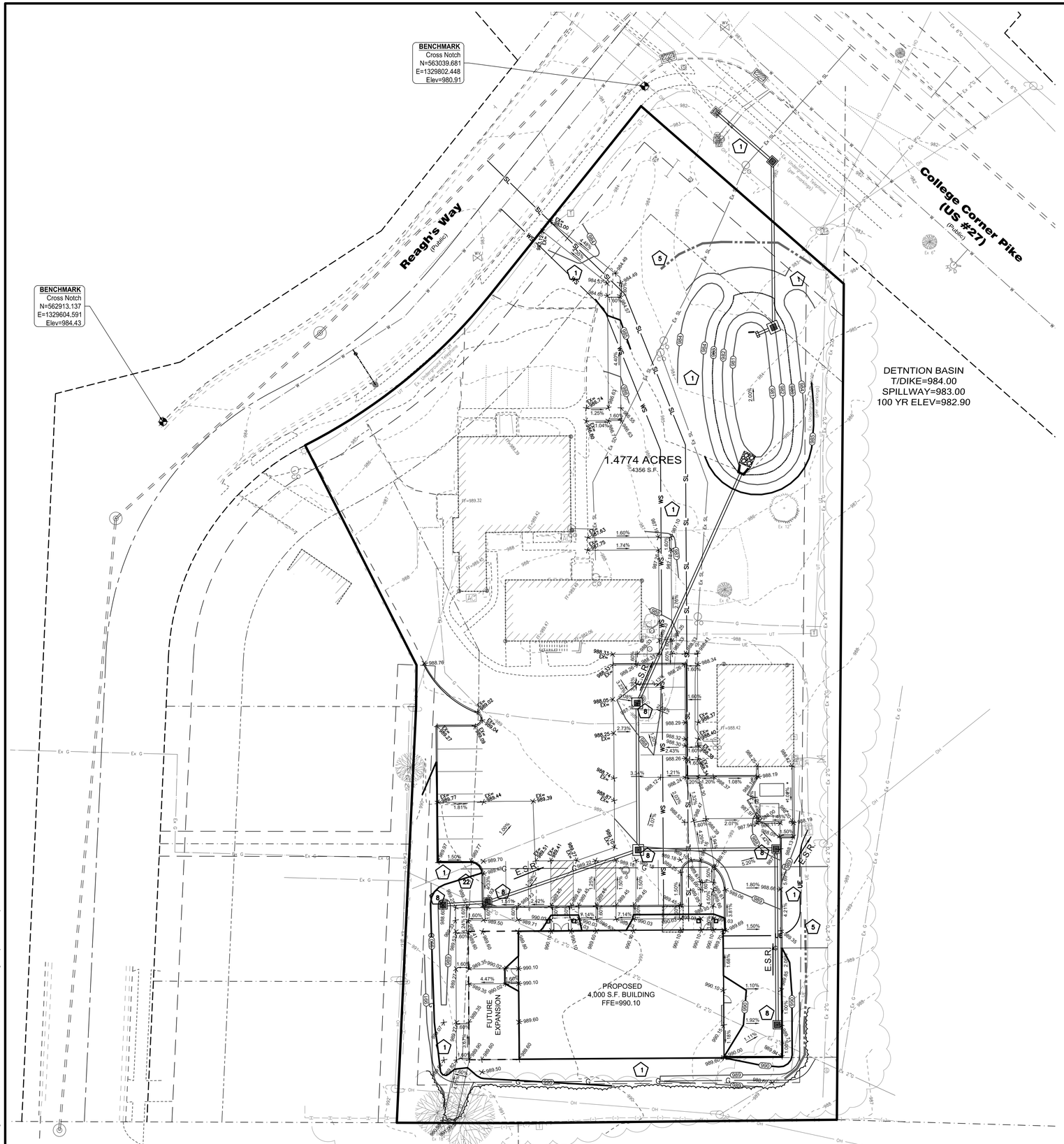
Plot time: Apr 22, 2025 - 2:58pm
Drawing name: J:\2024\24-0042\CIVIL\DWG\24-0042 CD.dwg - Layout Tab: Layout1



NOTE:
1. CONFIRM SECTION WITH GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.
2. STRUCTURAL FILLS TO BE COMPACTED AND CONSTRUCTION PER THE SITE GEOTECHNICAL ENGINEER.

TYPICAL DAM SECTION

NOT TO SCALE

BASIN SPILLWAY DETAIL

NOT TO SCALE

EROSION CONTROL NOTES

1. CONTRACTOR TO PROVIDE SILT FENCE AT STORM SEWER OUTLETS TO PREVENT EROSION. STRAW WATTLES AT LEAST 12" IN DIAMETER MAY BE USED AS AN ALTERNATIVE TO SILT FENCE.
2. CONTRACTOR SHALL INSTALL AND MAINTAIN A CONCRETE WASHOUT FACILITY PER CITY OF OXFORD STANDARDS.
3. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO CONSTRUCTION AND MAINTAINED DURING CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMPs) SHOWN ON PLANS SHALL BE REVISED OR IMPLEMENTED AS REQUIRED. CONTRACTOR SHALL MONITOR CONSTRUCTION BMPs AND PROVIDE ADDITIONAL BMPs AS REQUIRED TO PREVENT SEDIMENT RUNOFF FROM CONSTRUCTION SITE ONTO PAVEMENT AND NON-WORK AREAS.
5. AT A MINIMUM, ALL EROSION AND SEDIMENT CONTROLS ON THE SITE SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. QUALIFIED INSPECTION PERSONNEL (THOSE WITH KNOWLEDGE AND EXPERIENCE IN THE INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROLS) SHALL CONDUCT THESE INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE EROSION CONTROL IS ADEQUATE AND PROPERLY IMPLEMENTED OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. INSPECTION FREQUENCY MAY BE REDUCED TO MONTHLY IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS FOR EXTENDED PERIODS OF TIME. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.
12. SITE STABILIZATION SHALL BEGIN WITHIN 7 DAYS ON AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED FOR 14 DAYS.
13. ALL MUD OR DEBRIS TRACKED ON EXISTING STREETS SHALL BE CLEANED AT THE END OF EACH DAY OR AS DIRECTED BY THE CITY OF OXFORD OR THE OWNER. PERIODIC STREET SWEEPING MAY BE REQUIRED.
14. IN ADDITION TO ANY TEMPORARY EROSION, MUD, AND DEBRIS CONTROL DETAILS AND NOTES SHOWN ON THE PLANS, THE CONTRACTOR SHOULD PLACE TEMPORARY OR PERMANENT SEEDING, MULCHING AND/OR MULCH NETTING OR ANY OTHER GENERALLY ACCEPTED METHODS TO PREVENT EROSION, MUD, AND DEBRIS FROM BEING DEPOSITED ON OTHER PROPERTY, ON NEWLY CONSTRUCTED OR EXISTING ROADS, OR INTO EXISTING SEWERS OR NEW SEWERS WITHIN THE DEVELOPMENT. THE CONTRACTOR SHOULD CONTINUALLY MONITOR THE CONSTRUCTION PROGRESS AND MAKE ANY NECESSARY TEMPORARY ADJUSTMENTS TO MAINTAIN THIS CONTROL.
15. AFTER THE VEGETATION HAS BECOME WELL ESTABLISHED, TEMPORARY EROSION AND SEDIMENT CONTROLS CAN BE REMOVED.
16. FOR ANY DIESEL FUEL, OIL, HYDRAULIC FLUIDS, PETROLEUM PRODUCTS, OR OTHER CHEMICALS, INSTALL DIKED AREAS AROUND STORAGE TANKS AND INSTALL NEAR A STABILIZED SURFACE AWAY FROM DRAINAGE WAYS. DISPOSAL OF HAZARDOUS WASTE SHALL BE DONE PER LOCAL AND/OR STATE REGULATIONS.
17. CONTRACTOR TO DESIGNATE LOCATIONS OF ON-SITE FUELING, EQUIPMENT, AND MATERIAL STORAGE.

SWPPP NOTES

1. THE CONSTRUCTION ACTIVITY WILL CONSIST OF MASS EARTHWORK, UTILITY INSTALLATION, CURB AND PAVEMENT CONSTRUCTION, AND BUILDING FOR A PROPOSED BUILDING AND PARKING.
2. ACREAGE:
   DISTURBED AREA 0.69 ACRES
   (GRADING LIMITS AS SHOWN ON SHEET C5.0)
3. PRIOR LAND USE: FOOD PANTRY
4. IMPERVIOUS CALCULATIONS:
   IMPERVIOUS AREA
   PRE-DEVELOPED 0.46 ACRES
   POST-DEVELOPED 0.69 ACRES

   IMPERVIOUS PERCENTAGE
   PRE-DEVELOPED 31.1 %
   POST-DEVELOPED 46.6 %
5. EXISTING SOIL DATA:

SYMBOL	SOIL NAME	HSG
RxB	RUSSELL-URBAN LAND COMPLEX, GENTLY SLOPING	C

6. THE DEVELOPMENT DRAINS TO THE NORTH TO AN UNNAMED TRIBUTARY TO FOUR MILE CREEK.
7. WEIGHTED "C"
   PRE-DEVELOPED 0.50
   POST-DEVELOPED 0.60

LEGEND

⬠1	SEEDING & MULCHING
⬠5	SILT FENCE OR MULCH BERM ▬ ▪ ▪ ▬
⬠8	DANDY BAG (OR APPROVED EQUAL)
⬠21	CONSTRUCTION ENTRANCE
⬠22	CONCRETE WASHOUT
F.F.E.	FINISHED FLOOR ELEVATION
⌖ EX= XXX.XX	EXISTING SPOT GRADE
⌖ XXX.XX	PROPOSED TOP OF PAVEMENT
────	PROPOSED CONTOURS
– – – –	EXISTING CONTOURS
E.S.R. →	EMERGENCY STORM ROUTE
︵︵︵︵	PROPOSED TREE LINE

Basis of Bearing:
State Plane NAD83 (2011)

SCALE: 1" = 20'

Know what's below.
Call before you dig.

LOCATION OF ALL EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION

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E-69324
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Oxford, OH 45056 - 513.523.4270

Drawing: 24-0042 CD
Drawn by: SJW
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PERMANENT SEEDING (1)

Permanent seeding includes the seedbed preparation, seeding, and the establishment of perennial vegetation used to permanently stabilize soil, prevent sediment pollution, reduce runoff by promoting infiltration, and provide storm water quality benefits offered by dense vegetation.

CONDITIONS WHERE PRACTICE APPLIES

Permanent seeding should be applied to:

* Areas or portions of construction-sites which can be brought to final grade. Applications of permanent seeding should not be delayed while construction on limited portions of the site being completed.
* Areas on that will be regraded, but will be dormant for a year or more.

PLANNING CONSIDERATIONS

Healthy dense turf will have a dramatic long lasting effect on stormwater quality as well as promoting infiltration and reducing the amount of runoff. To establish quality vegetation, careful preparation of the seedbed, soil, even subsoil is highly encouraged.

Soil Compaction--Stormwater quality and the amount of runoff both vary significantly with soil compaction. Non-compacted soils improve stormwater by promoting:

* dense vegetation.
* high infiltration & lower runoff rates.
* pollutant filtration, deposition & absorption, and
* beneficial biologic activity in the soil.

Construction activity can cause highly compacted soils but also offers the opportunity to improve soil condition. The best time for improving soil condition is during the establishment of permanent vegetation. It is highly recommended that subsoilers, plows or others implements be specified as part of final seedbed preparation. Use discretion in slip-prone areas.

Minimum Soil Conditions--Vegetation cannot be expected to stabilize soil that is unstable due to its texture, structure, water movement or excessively steep slope. The following minimum soil conditions are needed for the establishment and maintenance of a long-lived vegetation cover. If these conditions cannot be met, see the Standards and Specifications for Reseiling.

* Soils must include enough fine-grained material to hold at least a moderate amount of available moisture.
* The soil must be free from material that is toxic or otherwise harmful to plant growth.

Permanent Seeding			
Seed Mix	Seeding Rate lb./ac.	Seeding Rate lb./1,000 ft.^{2}	Notes:
General Use			
Creeping Red Fescue Ryegrass Kentucky Bluegrass	20-40 10-20 10-20	1/2-1 1/4-1/2 1/4-1/2	
Tall Fescue	40	1	
Dwarf Fescue	40	1	
Steep Banks or Cut Slopes			
Tall Fescue	40	1	
Crown Vetch Tall Fescue	10 20	1/4 1/2	Do not seed later than August
Flat Pea Tall Fescue	20 20	1/2 1/2	Do not seed later than August
Road Ditches and Swales			
Tall Fescue	40	1	
Dwarf Fescue Kentucky Bluegrass	90 5	2 1/4	
Lawns			
Perennial Ryegrass Kentucky Bluegrass	60 60	1 1/2 1 1/2	
Creeping Red Fescue Kentucky Bluegrass	60 60	1 1/2 1 1/2	For shaded areas

Note: Other approved seed species may be substituted.

Maintenance for Permanent Seedings Fertilization and Mowing					
Mixture	Formula	lb./ac.	lb./1,000 sq. ft.	Time	Mowing
Creeping Red Fescue Ryegrass Kentucky Bluegrass	10-10-10	500	12	Fall, yearly or as needed	Not closer than 3"
Tall Fescue	10-10-10	500	12		Not closer than 4"
Dwarf Fescue	10-10-10	500	12		Not closer than 2"
Crown Vetch Fescue	0-20-20	400	10	Spring, yearly following establishment and every 4-7 yrs. thereafter	Do not mow
Flat Pea Fescue	0-20-20	400	10		Do not mow

Note: Following soil test recommendations is preferred to fertilizer rates shown above.

SITE PREPARATION

1. A subsoiler, plow or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
3. Resoil shall be applied where needed to establish vegetation.

SEEDBED PREPARATION

1. Lime--Agricultural group limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 lb./1,000 sq. ft. or 2 tons/ac.
2. Fertilizer--Fertilizer shall be applied as recommended by a soil test. In lieu of a soil test, fertilizer shall be applied at a rate of 12 lb./1,000 sq. ft. or 500 lb./ac. of 10-10-10- or 12-12-12 analysis.
3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 in. On sloping land the soil shall be worked on the contour.

SEEDING DATES AND SOIL CONDITIONS

Seeding should be done March 1 to May 31 or August 1 to September 30. These seeding dates are ideal but, with the use of additional mulch and irrigation, seedings may be made any time throughout the growing season. Tillage/seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.

MULCHING

1. Mulch material shall be applied immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization. Dormant seeding shall be mulched.
2. Materials

* Straw--If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 sq. ft. sections and spread two 45-lb. bales of straw in each section.
* Hydroseeders--If wood cellulose fiber is used, it shall be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
* Other--Other acceptance mulches include mulch mattings applied according to manufacturer's recommendations or wood chips applied at 6 tons/ac.

3. Straw Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

* Mechanical--A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped by, generally, be left longer than 6 in.

PERMANENT SEEDING (1)

MAINTENANCE

1. Permanent seeding shall not be considered established for at least 1 full yr. from the time of planting. Seeded areas shall be inspected for failure and vegetation conditions, it may be necessary to irrigate, fertilize, overseed, or reestablish plantings in order to provider permanent vegetation for adequate erosion control.
2. Maintenance fertilization rates shall be established by soil test recommendations or by using the rates shown in the following table.

DORMANT SEEDINGS.

1. Seeding shall not be planted from October 1 through November 20. During this period the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for "Dormant Seeding":

* From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
* From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.
* Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.
* Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.
* Mulch Nettings--Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
* Asphalt Emulsion--Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./ac.
* Synthetic Binders--Synthetic binders such as Acrylic DLR (Agri-Tac), DAC-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer.
* Wood Cellulose Fiber--Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./ac. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.

IRRIGATION

1. Permanent seeding shall include irrigation to establish vegetation during dry or hot weather or on adverse site conditions as needed for adequate moisture for seed germination and plant growth.
2. Excessive irrigation rates shall be avoided and irrigation monitored to prevent erosion and damage from runoff.

TEMPORARY SEEDING (1)

Temporary seeding provides erosion control on areas in between construction operations. Grasses which are quick growing are seeded and usually mulched to provide prompt, temporary soil stabilization. It effectively minimizes the area of a construction-site prone to erosion and should be used everywhere the sequence of construction operations allows vegetation to be established.

CONDITIONS WHERE PRACTICE APPLIES

Temporary seeding should be applied on exposed soil where additional work (grading,etc.) is not scheduled for more than 21 days. Permanent seeding should be applied if the areas will be idle for more than a year.

PLANNING CONSIDERATIONS

This practice has the potential to drastically reduce the amount of sediment eroded from a construction-site. Control efficiencies greater than 90% will be achieved with proper applications of temporary seeding. Because practices used to trap sediment are usually much less effective, temporary seeding is to be used even on areas where runoff is treated by sediment trapping practices. Because temporary seeding is highly effective and practical on construction-sites, its liberal use is highly recommended.

Temporary Seeding Species Selection			
Seeding Dates	Species	Lb./1,000 ft.^{2}	Per Acre
March 1 to August 15	Oats Tall Fescue Annual Ryegrass	3 1 1	4 bushel 40 lb. 40 lb.
	Perennial Ryegrass Tall Fescue Annual Ryegrass	1 1 1	40 lb. 40 lb. 40 lb.
August 16 to November 1	Rye Tall Fescue Annual Ryegrass	3 1 1	2 bushel 40 lb. 40 lb.
	Wheat Tall Fescue Annual Ryegrass	3 1 1	2 bushel 40 lb. 40 lb.
	Perennial Ryegrass Tall Fescue Annual Ryegrass	1 1 1	40 lb. 40 lb. 40 lb.
November 1 to Spring Seeding	Use mulch only, sodding practices or dormant seeding.		

Note: Other approved seed species may be substituted.

1. Structural erosion- and sediment-control practices such as diversions and sediment traps shall be installed and stabilized with temporary seeding prior to grading the rest of the construction-site.
2. Temporary seed shall be applied between construction operations on soil that will not be graded or reworked for 21 days or more. These idle areas should be seeded as soon as possible after grading or shall be seeded within 7 days. Several applications of temporary seeding are necessary on typical construction projects.
3. The seedbed should be pulverized and loose to ensure the success of establishing vegetation. However, temporary seeding shall not be postponed if ideal seedbed preparation is not possible.
4. Soil Amendments--Applications of temporary vegetation shall establish adequate stands of vegetation which may require the use of soil amendments. Soil tests should be taken on the site to predict the need for lime and fertilizer.
5. Seeding Method--Seed shall be applied uniformly with a cyclone seeder, drill cultipacker seeder, or hydroseeder. When feasible, seed that has been broadcast shall be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used, the seed and fertilizer will be mixed on-site and the seeding shall be done immediately and without interruption.

MULCHING TEMPORARY SEEDING

1. Applications of temporary seeding shall include mulch which shall be applied during or immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization.
2. Materials:

* Straw--If straw is used, it shall be unrotted small-grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq.-ft. sections and spread two 45-lb. bales of straw in each section.
* Hydroseeders--If wood cellulose fiber is used, it shall be used at 2,000 lb/ac. or 46 lb./1,000 sq. ft.
* Other--Other acceptance mulches include mulch mattings applied according to manufacturer's recommendations or wood chips applied at 6 tons/ac.

3. Straw mulch shall be anchored immediately to minimize loss by wind or water.
   Anchoring Methods:

* Mechanical--A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 in.
* Mulch Nettings--Nettings shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentration runoff and on critical slopes.
* Asphalt Emulsion--Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./ac.
* Synthetic Binders--Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer.
* Wood-Cellulose Fiber--Wood-cellulose fiber binder shall be applied at a net dry weight of 750 lb./ac. The wood-cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal.

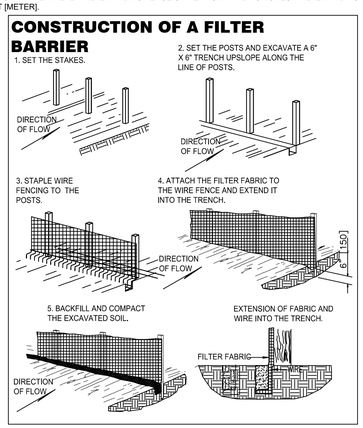
INSTALLATION (5) SILT FENCE

1. PUT UP BEFORE ANY OTHER WORK IS DONE.
2. INSTALL ON DOWNSLOPE SIDE(S) OF SITE WITH ENDS EXTENDED UP SIDESLOPES A SHORT DISTANCE.
3. PLACE PARALLEL TO THE CONTOUR OF THE LAND AND AT THE FLATTEST AREA AVAILABLE TO ALLOW WATER TO POND BEHIND FENCE.
4. STAKE TO BE A MINIMUM OF 32 INCHES LONG
5. MINIMUM HEIGHT SILT FENCE 16 INCHES ABOVE ORIGINAL GROUND SURFACE
6. LEAVE NO GAPS BETWEEN SECTIONS OF SILT FENCE INSPECT AND REPAIR ONCE A WEEK AND AFTER EVERY 1/2 INCH RAIN. REMOVE SEDIMENT IF DEPOSITS REACH HALF THE FENCE HEIGHT.
7. MAXIMUM DISTANCE FROM TOE OF THE SLOPE, LEAVING AT LEAST 5' DISTANCE.
8. STAKE ON DOWNHILL SIDE OF GEOTEXTILE WITH 8" OF CLOTH CLOTH BELOW THE GROUND SURFACE; EXCESS MATERIAL TO LAY ON THE BOTTOM OF 6" TRENCH
9. ODOT TYPE "C" GEOTEXTILE FABRIC OR EQUAL
10. MAINTAIN UNTIL A LAWN IS ESTABLISHED.

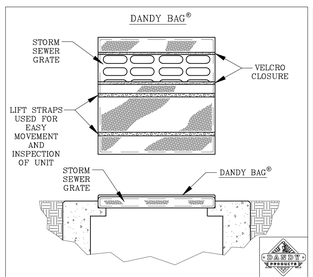
MATERIALS: FILTER FABRIC SHALL MEET THE REQUIREMENTS OF CMS 712.09, TYPE C. SUPPORT STAKES SHALL BE A MINIMUM OF 1.5"X1.5" [38X38], NOMINAL, AND SHALL BE HARDWOOD OF SOUND QUALITY. THE STAKES SHALL BE DRIVEN A MINIMUM OF 8" [150] BELOW THE BOTTOM OF THE FILTER FABRIC. THE MAXIMUM SPACING BETWEEN SUPPORT STAKES SHALL BE 10' [3 M].

CONSTRUCTION: THE BOTTOM OF THE FABRIC SHALL BE BURIED 6" [150] BELOW THE GROUND. THE ENDS OF ADJACENT SECTIONS OF FENCE SHALL BE OVERLAPPED WITH THE END STAKE OF EACH SECTION WRAPPED TOGETHER PRIOR TO INSTALLATION. THE GROUND ELEVATION OF THE FENCE SHALL BE HELD CONSTANT EXCEPT THAT THE END ELEVATIONS SHALL BE RAISED UPSLOPE TO PREVENT FLOW AROUND THE END OF THE FENCE. MAINTENANCE: THE FILTER FABRIC FENCE SHALL BE MAINTAINED TO BE FUNCTIONAL. THIS SHALL INCLUDE REMOVAL OF TRAPPED SEDIMENT AND REQUIRED CLEANING, REPAIR, AND REPLACEMENT OF THE FILTER FABRIC. THE MAINTENANCE OR REPLACEMENT COST WILL BE PAID FOR BY THE DEPARTMENT UNDER UNIT BID PRICES, AGREED UNIT PRICES, OR CMS 109.04.

PAYMENT: THE COST OF ALL MATERIALS, CONSTRUCTION AND REMOVAL SHALL BE PAID FOR UNDER ITEM 207 - TEMPORARY PERIMETER FILTER FABRIC FENCE OR TEMPORARY DITCH CHECK FILTER FABRIC FENCE, LINEAR FOOT [METER].



DANDY BAG & DANDY CURB BAG DETAILS (8) (9)



DETAIL OF INLET SEDIMENT CONTROL DEVICE

PROJECT: DR. BY:
CITY/STATE: DATE: DR. NO:

DANDY BAG®
SPECIFICATIONS

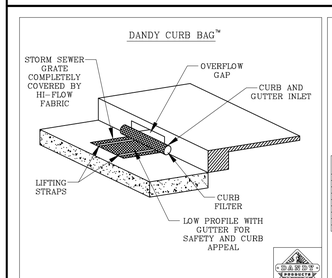
NOTE: THE DANDY BAG® WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HI-FLOW DANDY BAG® (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 x 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm. (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m^2(gal/min/ft^2)	5907 (145)
Permittivity	ASTM D 4491	Sec $^{-1}$	2.1

*Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows

Detail Provided By:
Site Supply Inc.
33 Glendale-Milford Road
Loveland, OH 45140
Phone: (513) 248-1498
Fax: (513) 248-4584
cbrowning@sitefabric.com
http://www.sitefabric.com



DETAIL OF CURB INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER

PROJECT: DR. BY:
CITY/STATE: DATE: DR. NO:

DANDY CURB BAG™
SPECIFICATIONS

NOTE: THE DANDY CURB BAG™ WILL BE **MANUFACTURED IN THE U.S.A** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

DANDY CURB BAG™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 x 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm. (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m^2(gal/min/ft^2)	5907 (145)
Permittivity	ASTM D 4491	Sec $^{-1}$	2.1

*Note: All Dandy Curb Bags™ can be ordered with our optional oil absorbents

Erosion Prevention and Sediment Control Site Inspection Form

Introduction: By using some simple Best Management Practices (BMP's) developers and contractors can do their share to protect water resources from the harmful effects of sediment. The topography of the site and the extent of the construction activities will determine which of these practices are applicable to any given site, but the BMP's listed here are applicable to most construction sites. For details on the installation and maintenance of these BMP's, please refer to the approved plans and or the Rainwater **and Land Development, Ohio's Standards for Storm Water Management, Land** *Development and Urban Stream Protection (ODNR, 1996)*.

Temporary Stabilization is the most effective BMP. All disturbed areas that will lie dormant for 14 days or more must be stabilized within 7 days of the date the area becomes inactive. The goal of temporary stabilization is to provide cover quickly. Areas within 50 feet of a stream must be stabilized within 2 days of reaching final grade. This is accomplished by seeding with fast-growing grasses, then covering with straw mulch. See the Rainwater and Land Development Manual for seasonally adjusted seeding specifications. To minimize your costs of temporary stabilization, leave natural cover in place for as long as possible by only disturbing areas worked within the next 14 days.

Construction Entrances are installed to minimize off-site tracking of sediments. A rough stone access drive underlain with woven geotextile shall be installed at every point where vehicles enter or exit the site. Every individual lot should also have its own drive once construction on the lot begins. Maintenance is performed by top dressing with stone and/or street sweeping.

Sediment Basins/Traps are the sediment control of choice for areas, which exceed the design capacity of silt fence (see page 119 of the Rainwater manual) or to control concentrated flows or runoff. There are two types: sediment basins and sediment traps. A trap is appropriate where the contributing drainage area is 10 acres or less. The outlet is an earthen embankment with a simple stone spillway underlain with woven geotextile. A sediment basin is appropriate for drainage areas larger than 10 acres. The outlet is an engineered riser pipe. Often a permanent storm water management pond, such as a retention or detention basin, can be retrofitted to act as a sediment basin during construction. All sediment ponds, regardless of whether they are a trap or a basin, or whether they will become a permanent storm water pond, must provide a minimum storage of 67 cubic yards per acre of total contributing drainage area. Sediment ponds must be installed prior to mass clearing and grading. Maintenance must be performed once the basin loses 40% of capacity, and 30% for storm water basins retrofitted as sediment basins.

Silt Fence or Mulch Berms are typically used at the perimeter of a disturbed area. They are only for small drainage areas on relatively flat slopes or around small soil storage piles; not suitable where runoff is concentrated in a ditch, pipes or though streams. For large drainage areas where flow is concentrated, collect runoff in diversion berms or channels and pass it through a sediment pond prior to discharging it from the site. Combination barriers constructed of silt fence supported by welded wire fencing, mulch berms supported by rock check dams, or silt fence embedded within rock check dams may be effective within small channels. As with all sediment controls, silt fence or mulch berms must be capable of ponding runoff so that sediment can settle out of suspension. These must be installed within 7 days of first grubbing the area it controls. Whenever practical they should be installed before clearing or grubbing the area it controls.

Inlet Protection must be installed on all yard drains and curb drains when these inlets do not drain to a sediment trap or basin. Even if there is a sediment trap or basin, inlet protection is still recommended, as it will reduce the amount of sediment entering the basin and increase the overall sediment removal efficiency. Best used on roads with little or no traffic. If working properly, inlet protection will cause water to pond. If used on curb inlets, streets will flood temporarily during heavy storms, (overflow should be built-in.) Check with the authority that has jurisdiction over the roads before installing. They may prefer an alternate BMP. Care should be taken when placing inlet protection so that the runoff is not diverted to public roads or other areas where it could cause a hazard.

Permanent Stabilization must occur on areas at final grade within 7 days of reaching final grade. This is usually accomplished by using seed and mulch, but special measures are sometimes required. This is particularly true in drainage ditches or on steep slopes. These measures include the addition of topsoil, erosion control matting, rock riprap or retaining walls. See the Rainwater and Land Development Manual for seasonally adjusted seeding specifications. At all times of the year, the area should be temporarily stabilized until a permanent seeding can be applied.

Inspections shall be performed at least once a week and within 24 hours after a storm event greater than 1/2 inch of rainfall within a 24-hour duration using the enclosed Inspection Form. Inspections can be tracked using the enclosed Inspection Log. These shall be maintained throughout the development process and kept on file for three years per OEPA requirements. Erosion prevention and sediment control (EP&SC) measures shall be observed to ensure correct operation. Discharge locations shall be inspected to determine effectiveness of EP&SC measures in preventing significant impacts to the receiving waters. Where practices require repair or maintenance, it must be accomplished within three days of the inspection or as soon as site conditions allow. Repairs to sediment ponds shall be completed within 10 days or as soon as site conditions allow. Most of these BMP's are easy to implement with a little bit of planning and go a long way toward keeping your site clean and organized if they are properly installed and maintained. Please be sure to inform all parties on site how these BMPs affect their operations on the site, particularly those that will be working near a stream.

Erosion Prevention and Sediment Control Site Inspection Form

Inspector: _____ Date: _____

General:
Amount of rainfall since last inspection: _____inches
Overall site conditions: _____

Construction Entrances:
Is the entrance installed correctly according to the approved plan? YES NO N/A
(Check for mud in stones/street, runoff diverted from street, etc..)
Action Needed: _____

Sediment Basins/Traps:
Are all Basins installed correctly according to the approved plan? YES NO N/A
(Check for runoff directed to basin, down slope areas stabilized, riser pipe wrapped with wire fence/filter fabric, emergency overflow, accumulated sediment more than 40% of volume, etc..)
Action Needed: _____

Silt Fence/Mulch Berms:
Are all Silt Fence/Mulch Berm (SF/MB) installed correctly according to the approved plan?
YES NO N/A (Check for fabric trenched in, follow contour, turned upslope at ends, silt accumulated, broken stakes, tight fabric, installed in all areas where sediment could leave the site)
Action Needed: _____

Inlet Protection:
Are all Inlet Protections installed correctly according to the approved plan? YES NO N/A
Check for runoff ponding, in good shape, silt accumulated, etc..)
Action Needed: _____

Temporary Stabilization:
Are all disturbed areas that will lie dormant for 14 days or more stabilized with seed/straw or mulch? (stockpiles, hillsides, etc..) YES NO N/A

Are all areas stabilized still in good condition and not eroding? YES NO N/A

Permanent Stabilization:
Have areas that achieved final grade within the last 7 days been stabilized? YES NO N/A

Do all storm water outflow areas have riprap or concrete to prevent scouring? YES NO N/A

Stream Crossing:
Are the Stream Crossings installed correctly according to the approved plan? YES NO N/A
(Check for stabilized edges, runoff diverted from stream, mud over stones, end of useful life, etc..)
Action Needed: _____

Erosion Prevention and Sediment Control Site Inspection Form

If you answered "no" to any of the above questions, note any corrective action needed above, and note on the Inspection Log when the action was completed.

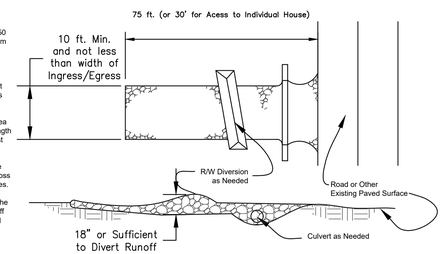
Inspection Log

The site shall be inspected before and after storm events with 0.5 inches or greater predicted or actual precipitation, and documented on the Construction Site Inspection Form. Incidents of noncompliance must be reported to the Engineer. A log of all inspections, as shown below, shall be kept current.

Date:	Inspector:	Actions Performed/Date:

CONSTRUCTION ENTRANCE (21)

1. Stone Size--Two-inch stone shall be used, or recycled concrete equivalent.
2. Length--The construction entrance shall be as long as required to stabilize high traffic areas but not less than 50 ft. (except on single residence lot where a 30-ft. minimum length applies).
3. Thickness--The stone layer shall be at least 6 in. thick.
4. Width--The entrance shall be at least 10 ft. wide, but not less than the full width at points where ingress or egress occurs.
5. Bedding--A geotextile shall be placed over the entire area prior to placing stone. It shall have a Grab Tensile Strength of at least 200 lb. and a Mullen Burst Strength of at least 190 lb.
6. Culvert--A pipe or culvert shall be constructed under the entrance if needed to prevent surface water flowing across the entrance from being directed out onto paved surfaces.
7. Water Bar--A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces.
8. Maintenance--Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surfaces where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
9. Construction entrances shall not be relied upon to remove mud fro vehicles and prevent off-site tracking. Vehicles that enter and leave the construction-site shall be restricted from muddy areas.



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STATE OF OHIO
GREGORY J. KOCH
8-69324
PROFESSIONAL ENGINEER
2/28/25

Item	Revision Description	Date	Drawn	Chk

TOPSS: TALAWANDA OXFORD PANTRY & SOCIAL SERVICES
SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

EROSION CONTROL NOTES AND DETAILS

bayer becker
www.bayerbecker.com
110 S. Poplar Street, Suite 101
Oxford, OH 45056 - 513.523.4270

Drawing: 24-0042 CD
Drawn by: SJW
Checked By: GJK
Issue Date: 02-14-25
Sheet: C5.1

Plot time: Feb 14, 2025 - 5:31pm
Drawing name: J:\2024\24-0042\CIVIL\DWG\24-0042 CD.dwg - Layout Tab: Layout1

LANDSCAPE ZONING REQUIREMENTS

CURRENT ZONING:

GB (GENERAL BUSINESS DISTRICT)

ADJACENT ZONING:

NORTH: REAGH'S WAY & COLLEGE CORNER PIKE
EAST: GB (GENERAL BUSINESS DISTRICT)
SOUTH: GB (GENERAL BUSINESS DISTRICT)
WEST: R-3 (MULTI-FAMILY RESIDENTIAL DISTRICT)

SECTION 1148.03 STREET TREE REQUIREMENTS:

TREES SHALL BE PLANTED IN THE TREE LAWN OR OTHER APPROPRIATE AREAS IN THE STREET RIGHTS-OF-WAY AS REQUIRED IN CHAPTER 935.

CHAPTER 935.05 STREET TREE SPECIES TO BE PLANTED

- THE TREE PLAN CONTAINS A LIST OF OFFICIAL STREET TREE SPECIES FOR THE CITY OF OXFORD
- PLANTED AT 2" DBH

CHAPTER 935.06 SPACING

- MIN. SPACING: SMALL TREES: 30FT (3' WIDTH MIN), MEDIUM TREES: 40FT (5' WIDTH MINIMUM), LARGE TREES (8' WIDTH MINIMUM): 50FT

ALL NEWLY PLANTED STREET TREES SHALL BE PLANTED EQUAL DISTANCE BETWEEN THE SIDEWALK AND THE CURB.

COLLEGE CORNER PIKE (WIDTH 6'+) = 49 LF / 40 LF = **1 MEDIUM STREET TREE PROVIDED**

REAGH'S WAY (WIDTH < 3') = 153 LF = NO STREET TREES DUE TO TREE LAWN WIDTH AND NO EXISTING STREET TREES ALONG REAGH'S WAY

SECTION 1148.04 TREE PLANTING REQUIREMENTS:

(C) NON RESIDENTIAL STANDARDS:

(1) OVERALL SITE TREES MINIMUM (1) TREE PER (10) LINEAR FEET OF PUBLIC STREET RIGHT OF WAY. IN THE CASE OF CORNER LOTS WITH FRONTAGES ON TWO PUBLIC STREETS THE CALCULATION SHALL BE BASED ON THE STREET WITH THE LONGEST FRONTAGE

REAGH'S WAY = 191 LF/ 10 LF = **19 SITE TREES**

PROVIDED: 1 STREET + 8 FRONT YARD + 3 SITE + 3 EXISTING + 4 PARKING

(2) FRONT YARD TREES MINIMUM (1) TREE PER (25) LINEAR FEET OF PUBLIC STREET RIGHT OF WAY SHALL BE PROVIDED WITHIN THE REQUIRED FRONT YARD AREA; SUCH TREES MAY CONTRIBUTE TOWARD FULFILLING THE OVERALL SITE TREE PLANTING REQUIREMENT.

REAGH'S WAY = 191 LF/ 25 LF = **8 FRONT YARD TREES PROVIDED**

(3) PARKING AREA TREES SEE SECTION BELOW FOR PARKING LOT CALCULATIONS. PARKING LOT TREES CAN COUNT TOWARD OVERALL SITE TREES.

1149.07 (E) (6) LANDSCAPING

A. PARKING AREA SHALL HAVE TWO (2) TREES PER PARKING FACILITY PLUS ONE (1) TREE FOR EVERY FIVE (5) PARKING SPACES OR FRACTION THEREOF GENERALLY DISTRIBUTED THROUGHOUT THE PARKING AREA.

19 SPACES/ 5 = **4 PARKING LOT TREES PROVIDED**

SECTION 1101.4 (410) LANDSCAPE PLAN:

A. BUFFERING

- BUFFERS SHALL PROVIDE YEAR-ROUND VISUAL SCREEN IN ORDER TO MINIMIZE ADVERSE IMPACTS. THEY MAY CONSIST OF FENCING, EVERGREENS, BERMS, ROCKS, BOULDERS, MOUNDS, OR COMBINATIONS.
- BUFFER REQUIRED TO SHIELD:

(1) NEIGHBORING PROPERTIES FROM ADVERSE EXTERNAL EFFECTS OF DEVELOPMENT

(2) DEVELOPMENT FROM NEGATIVE IMPACTS OF ADJACENT USES SUCH AS STREETS OR RAILROADS

EVERGREEN BUFFER PROVIDED ALONG WESTERN RESIDENTIAL PROPERTIES - MATURE HEIGHT LIMITED TO 15' AND UNDER.

CONCEPT GRAPHICS SCHEDULE

PARKING SPACE
(1) TREE REQUIRED PER (5) PARKING SPACES

Takeoff: 19

STREET TREES (WIDTH 5 FT)
MEDIUM STREET TREES
SPACING: 40' O.C.

Takeoff: 49 lf

STREET TREES (WIDTH <3 FT)
NO STREET TREES ARE ALLOWED TO BE PLANTED IN TREE LAWNS SMALLER THAN 3' WIDTH
NO STREET TREES PROVIDED

Takeoff: 153 lf

CONCEPT PLANT SCHEDULE

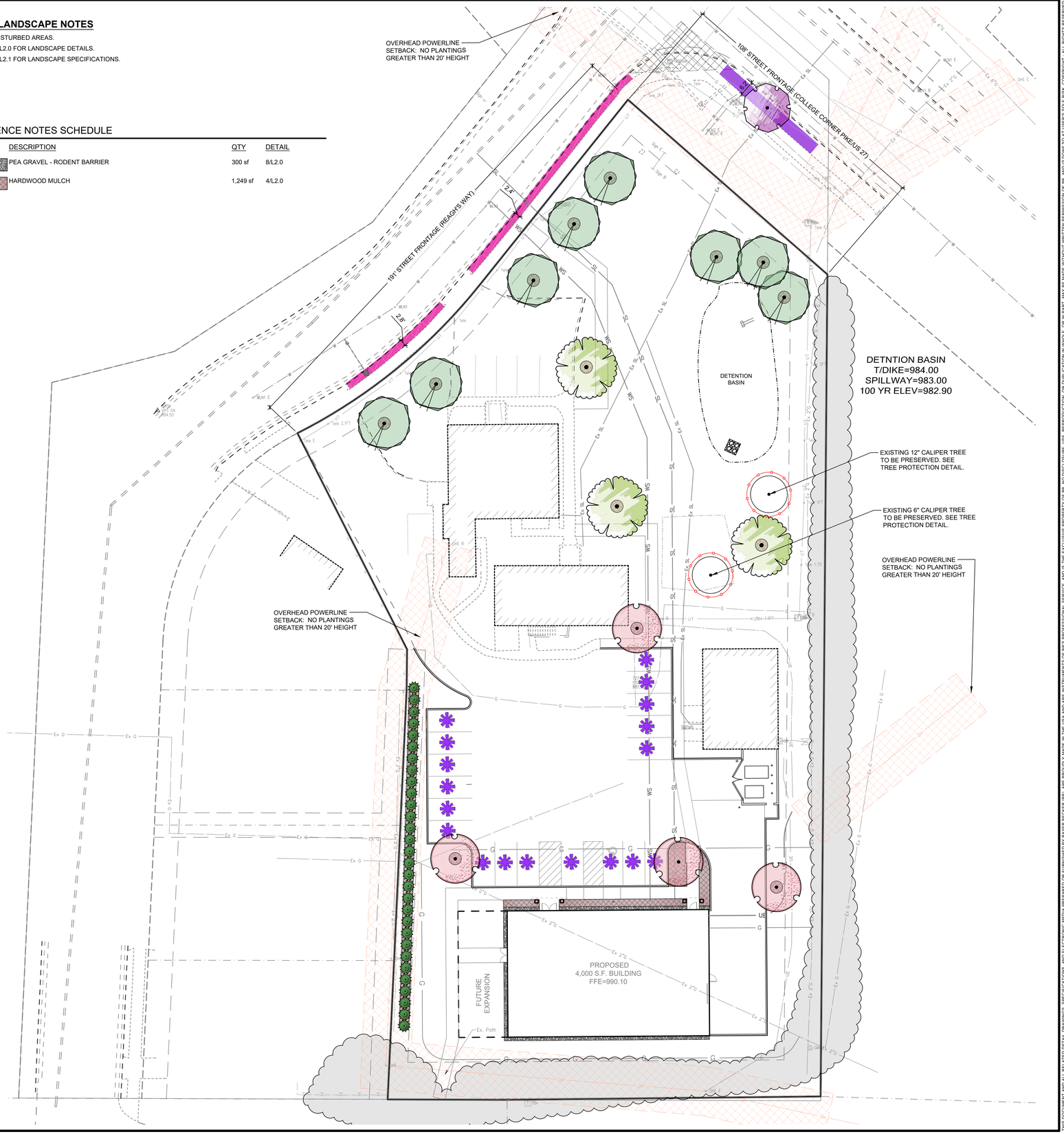
STREET TREE	Acer rubrum `Red Sunset` / Red Sunset Maple	1
FRONT YARD TREE	Ginkgo biloba 'Presidential Gold' / Presidential Gold Ginkgo Gymnocladus dioica `Espresso` / Kentucky Coffeetree Liriodendron tulipifera 'Fastigiata' / Columnar Tulip Poplar Quercus rubra / Red Oak Taxodium distichum `Autumn Gold` / Autumn Gold Bald Cypress	8
SITE TREE	Liriodendron tulipifera 'Fastigiata' / Columnar Tulip Poplar Quercus rubra / Red Oak Taxodium distichum `Autumn Gold` / Autumn Gold Bald Cypress Tilia tomentosa `Sterling` / Sterling Silver Linden	3
PARKING LOT TREE	Acer rubrum `Autumn Blaze` / Autumn Blaze Red Maple Ginkgo biloba 'Presidential Gold' / Presidential Gold Ginkgo Gleditsia triacanthos f. inermis `Shademaster` TM / Shademaster Honeylocust Tilia tomentosa `Sterling` / Sterling Silver Linden	4
EXISTING TREE	TREES WITH DBH OF 10 INCHES OR GREATER MAY BE COUNTED AS (2) REQUIRED TREES	2
DENSE EVERGREEN SHRUB	HEIGHT AT PLATING: 6' MAXIMUM HEIGHT: 15' DUE TO OVERHEAD POWERLINES Juniperus scopulorum 'Wichita Blue' / Wichita Blue Juniper Thuja occidentalis 'Sunkist' / Sunkist Arborvitae Thuja occidentalis 'Techny' / Techny Arborvitae	30

GENERAL LANDSCAPE NOTES

A. SEED ALL DISTURBED AREAS.
B. SEE SHEET L2.0 FOR LANDSCAPE DETAILS.
C. SEE SHEET L2.1 FOR LANDSCAPE SPECIFICATIONS.

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
	PEA GRAVEL - RODENT BARRIER	300 sf	8/L2.0
	HARDWOOD MULCH	1,249 sf	4/L2.0



Basis of Bearing:
State Plane NAD83 (2011)
0 20 30
SCALE: 1" = 20'

Item	Revision Description	Date	Drwn	Chk
1	REVISED PER OWNER REVIEW	02-26-25	LEM	LEM
2	REVISED PER CITY COMMENTS	04-22-25	LEM	

TOPSS: TALAWANDA OXFORD PANTRY & SOCIAL SERVICES

SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

LANDSCAPE PLAN: ZONING MINIMUM

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www.bayerbecker.com
110 S. Campus Avenue, Suite 101
Oxford, OH 45056 - 513.523.4270

Drawing: 24-0042 LA
Drawn by: LEM
Checked By:
Issue Date: 02-14-25
Sheet: L1.0

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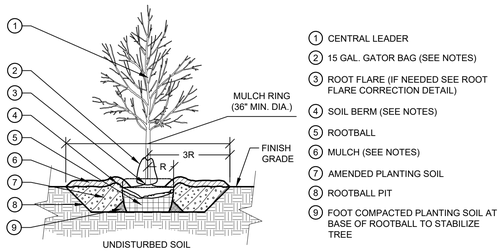
Plot time: Apr 22, 2025 - 1:35pm
Drawing name: J:\2024\24-0042\LA\DWG\24-0042 LA.dwg - Layout Tab: L1.0 Planting



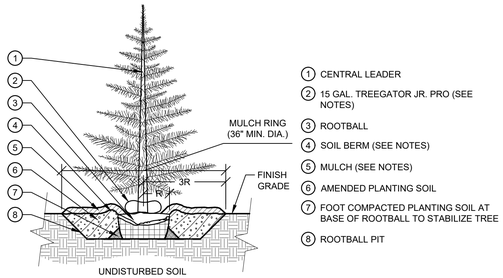
1. CENTRAL LEADER
2. 15 GAL. GATOR BAG (SEE NOTES)
3. ROOT FLARE (IF NEEDED SEE ROOT FLARE CORRECTION DETAIL)
4. SOIL BERM (SEE NOTES)
5. ROOTBALL
6. MULCH (SEE NOTES)
7. AMENDED PLANTING SOIL
8. ROOTBALL PIT
9. FOOT COMPACTED PLANTING SOIL AT BASE OF ROOTBALL TO STABILIZE TREE

NOTES:

A. REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP $\frac{1}{3}$ OF ROOTBALL.TOP OF ROOTBALL TO BE FLUSH WITH FINISH GRADE AFTER SETTLEMENT. ROOT FLARE 1" ABOVE FINISH GRADE.
B. BOTTOM OF ROOT BALL TO REST ON EXISTING OR RE-COMPACTED SOIL.
C. TREE PIT TO BE THREE TIMES THE WIDTH OF THE ROOTBALL.
D. SCARIFY BOTTOM AND SIDES OF TREE PIT TO 4" MIN. DEPTH.
E. SUBSOIL AND TOPSOIL REMOVED FROM EXCAVATIONS MAY BE USED AS PLANTING SOIL PROVIDED IT IS FREE OF ROCKS & DELETERIOUS MATERIALS. TOPSOIL AMENDED PER SOIL TESTING REPORT.
F. SOIL BERM 4" HIGH X 8" WIDE ABOVE ROOT BALL SURFACE SHALL BE CONSTRUCTED AROUND THE ROOT BALL. BERM SHALL BEGIN AT ROOT BALL PERIPHERY.
G. MULCH RING (SEE SPECIFICATIONS FOR DEPTH) AROUND TRUNK. MINIMUM 36" RADIUS DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
H. GATOR BAG TO BE INSTALLED & FILLED PER MANUFACTURER'S SPECIFICATIONS ON ALL TREES WHEN INSTALLED BETWEEN JUNE - AUG. 1"-4" CALIPER (1 BAG). 5"-8" (2 BAGS).
I. TREES UNDER 5" CALIPER ARE NOT REQUIRED TO BE GUYED UNLESS LOCATED ON SLOPES GREATER THAN 3:1 OR IN A WINDY LOCATION OR OTHER WISE DETERMINED NECESSARY.

1 TYP. TREE PLANTING DETAIL

NOT TO SCALE — P-24-TOP-01



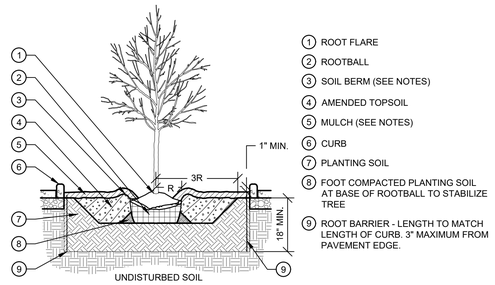
1. CENTRAL LEADER
2. 15 GAL. TREEGATOR JR. PRO (SEE NOTES)
3. ROOTBALL
4. SOIL BERM (SEE NOTES)
5. MULCH (SEE NOTES)
6. AMENDED PLANTING SOIL
7. FOOT COMPACTED PLANTING SOIL AT BASE OF ROOTBALL TO STABILIZE TREE
8. ROOTBALL PIT

NOTES:

A. REMOVE ALL TWINE, ROPE, WIRE, AND BURLAP FROM TOP $\frac{1}{3}$ OF ROOTBALL.TOP OF ROOTBALL TO BE FLUSH WITH FINISH GRADE AFTER SETTLEMENT. ROOT FLARE 1" ABOVE FINISH GRADE.
B. BOTTOM OF ROOT BALL TO REST ON EXISTING OR RE-COMPACTED SOIL.
C. TREE PIT TO BE THREE TIMES THE WIDTH OF THE ROOTBALL.
D. SCARIFY BOTTOM AND SIDES OF TREE PIT TO 4" MIN. DEPTH.
E. SUBSOIL AND TOPSOIL REMOVED FROM EXCAVATIONS MAY BE USED AS PLANTING SOIL PROVIDED IT IS FREE OF ROCKS & DELETERIOUS MATERIALS. TOPSOIL AMENDED PER SOIL TESTING REPORT.
F. SOIL BERM 4" HIGH X 8" WIDE ABOVE ROOT BALL SURFACE SHALL BE CONSTRUCTED AROUND THE ROOT BALL. BERM SHALL BEGIN AT ROOT BALL PERIPHERY.
G. MULCH RING (SEE SPECIFICATIONS FOR DEPTH) AROUND TRUNK. MINIMUM 36" RADIUS DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
H. GATOR BAG TO BE INSTALLED & FILLED PER MANUFACTURER'S SPECIFICATIONS ON ALL TREES WHEN INSTALLED BETWEEN JUNE - AUG.

2 TYP. EVERGREEN PLANTING DETAIL

NOT TO SCALE — P-24-TOP-02



1. ROOT FLARE
2. ROOTBALL
3. SOIL BERM (SEE NOTES)
4. AMENDED TOPSOIL
5. MULCH (SEE NOTES)
6. CURB
7. PLANTING SOIL
8. FOOT COMPACTED PLANTING SOIL AT BASE OF ROOTBALL TO STABILIZE TREE
9. ROOT BARRIER - LENGTH TO MATCH LENGTH OF CURB. 3" MAXIMUM FROM PAVEMENT EDGE.

NOTES:

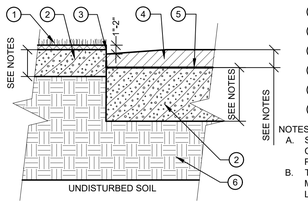
A. SOIL SHALL BE EXCAVATED A MINIMUM OF 18" IN TREE ISLAND. SUBSOIL AND TOPSOIL REMOVED FROM EXCAVATIONS MAY BE USED AS PLANTING SOIL PROVIDED IT IS FREE OF ROCKS & DELETERIOUS MATERIALS. TOPSOIL AMENDED PER SOIL TESTING REPORT.
B. BACKFILL TREE PIT WITH SPECIFIED SOIL MIX. COMPACT IN 6 INCH LIFTS.
C. ROOT BARRIERS SHALL BE INSTALLED WHEN ROOT BALL IS LOCATED WITHIN 8' OF PAVEMENT. TOP OF ROOT BARRIER 1" ABOVE FINISHED GRADE.ROOT BARRIERS TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
D. MULCH (SEE SPECIFICATIONS FOR DEPTH). DO NOT PLACE MULCH WITHIN 3" OF TRUNK. TOP OF MULCH SHALL BE A MINIMUM OF 1" BELOW ADJACENT CURB/WALK FOR MULCH CONTAINMENT.
E. SEE TYP. TREE PLANTING DETAIL FOR ADDITIONAL PLANTING NOTES AND DETAILS.

3 TREE ISLAND PLANTING

NOT TO SCALE — P-24-TOP-03

GENERAL LANDSCAPE NOTES

A. REFER TO LANDSCAPE SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS.
B. THE CONTRACTOR SHALL VISIT THE SITE AND COMPLETELY REVIEW THESE DOCUMENTS AND FULLY UNDERSTAND THE NATURE AND SCOPE OF WORK NEEDED TO ACHIEVE THE FINISHED PRODUCT INTENDED BY THE OWNER. IN ADDITION, THE CONTRACTOR SHALL AT ONCE REPORT TO THE LANDSCAPE ARCHITECT, INACCURACIES OR INCONSISTENCIES DISCOVERED. FAILURE TO REASONABLY RECOGNIZE OR NOTIFY THE LANDSCAPE ARCHITECT OF SUCH ITEMS SHALL RELEASE THE LANDSCAPE ARCHITECT AND OWNER OF ALL LIABILITY. ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT SHALL BE CORRECTED AT THE CONTRACTORS EXPENSE.
C. PRIOR TO CONSTRUCTION, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY TO COMPLETE THE WORK, LOCATING ALL UNDERGROUND UTILITIES, AND SHALL AVOID DAMAGE TO ALL UTILITIES DURING INSTALLATION. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ALL DAMAGE TO UTILITIES, STRUCTURES, SITE APPURTENANCES, ETC., WHICH MAY OCCUR AS A RESULT OF LANDSCAPE CONSTRUCTION.
D. CONTRACTOR MUST CERTIFY THAT ITS SAFETY PROGRAM MEETS REGULATORY REQUIREMENTS AT A MINIMUM. CONTRACTOR TO PROVIDE DOCUMENTATION OF THE OSHA RECORD KEEPING SUMMARY.
E. REFER TO BID DOCUMENTS AND COMPLY WITH ALL STATE & LOCAL TRAFFIC AND SAFETY REQUIREMENTS REGARDING APPROVED WORK TIMES, SCHEDULING OF INSTALLATION, AND ALL OTHER REQUIREMENTS.
F. LANDSCAPE CONTRACT IS RESPONSIBLE FOR COORDINATING WITH OTHER CONTRACTORS AND/OR LOCATING PROPOSED SITE UTILITIES, STORM STRUCTURES, EASEMENTS, ETC.
G. ALL PLANT MATERIAL MUST BE INSTALLED ACCORDING TO THE APPROVED LANDSCAPING PLAN BY NO LATER THAN THE NEXT PLANTING SEASON OR WITHIN 6 MONTHS FROM THE COMPLETION OF ALL SITE CONSTRUCTION.
H. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES. ANY DISCREPANCY BETWEEN THE PLANTING LIST AND THE PLAN SHALL BE VERIFIED BY THE LANDSCAPE ARCHITECT. ALL SUBSTITUTIONS AND/OR CHANGES SHALL BE REQUESTED IN WRITING TO THE OWNER OR OWNER'S REPRESENTATIVE AND BE APPROVED BY THE LANDSCAPE ARCHITECT AND THE LOCAL MUNICIPALITY (IF REQUIRED) PRIOR TO INSTALLATION.
I. INSTALL PLANTS - REFER TO TYPICAL PLANTING DETAILS FOR PLANT INSTALLATION.
J. IT IS THE CONTRACTOR'S OPTION WHETHER OR NOT TO STAKE A TREE UNDER 5" CALIPER, BUT IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT PLANTS REMAIN IN AN UPRIGHT POSITION UNTIL THE END OF THE WARRANTY PERIOD, AT WHICH POINT ANY STAKES & WIRE ARE TO BE REMOVED BY THE CONTRACTOR.
K. LANDSCAPE CONTRACTOR SHALL INSTALL GATOR BAGS, PER MANUFACTURER'S RECOMMENDATION FOR ALL TREES THAT ARE NOT OTHERWISE IRRIGATED. GATOR BAGS TO BE INSTALLED AND FILLED BETWEEN JUNE AND AUGUST. (1) BAG REQUIRED FOR 1" - 4" CALIPER TREES AND (2) BAGS REQUIRED FOR 5"-8" CALIPER TREES.
L. LANDSCAPE CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE FROM ALL PLANT BEDS WITHOUT ADVERSELY AFFECTING SITE DRAINAGE. GRADES BEHIND CURBS FOR AREAS TO RECEIVE MULCH SHALL BE HELD 4 INCHES BELOW TOP OF CURB AND 2 INCHES BELOW TOP OF CURB FOR SOD.
M. CONTRACTOR TO RUN PERCOLATION TESTS TO ASSURE PROPER DRAINAGE IN PLANTING AREAS.
N. ADDITIONAL ROCK EXCAVATION AND TOPSOIL MAY BE REQUIRED TO OBTAIN SPECIFIED PLANTING DEPTHS FOR ROOT COVERAGE BASED ON SITE CONDITIONS.



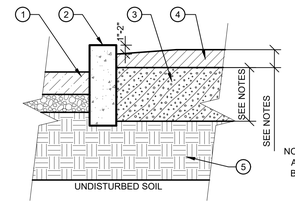
1. ADJACENT LAWN
2. AMENDED TOPSOIL
3. VERTICAL EDGE
4. MULCH
5. WEED CONTROL FABRIC
6. UNDISTURBED SOIL

NOTES:

A. SHOVEL CUT BED EDGE SHALL CREATE A CLEAN SEPARATION BETWEEN LAWN AND PLANTING AREA TO CONTAIN MULCH.
B. TAPER MULCH ALONG PLANTING BED EDGE. MULCH TO BE HELD 1"-2" BELOW ADJACENT LAWN.

4 MULCH BED ADJACENT TO LAWN

NOT TO SCALE — P-24-TOP-19



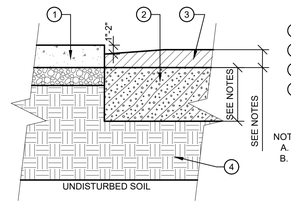
1. ADJACENT PAVEMENT (SEE PAVEMENT DETAIL)
2. ADJACENT CURB
3. AMENDED TOPSOIL
4. MULCH
5. UNDISTURBED SOIL

NOTES:

A. TAPER MULCH ALONG PLANTING BED EDGE.
B. MULCH TO BE HELD 1"-2" BELOW ADJACENT WALK. NO VOLCANO MULCH.

5 MULCH BED ADJACENT TO CURB

NOT TO SCALE — P-24-TOP-21



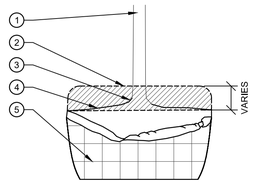
1. ADJACENT PAVEMENT
2. AMENDED TOPSOIL
3. MULCH
4. UNDISTURBED SOIL

NOTES:

A. TAPER MULCH ALONG PLANTING BED EDGE.
B. MULCH TO BE HELD 1"-2" BELOW ADJACENT WALK. NO VOLCANO MULCH.

6 MULCH BED ADJACENT TO PAVED SURFACE

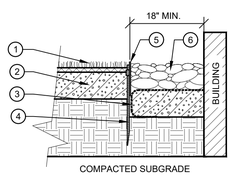
NOT TO SCALE — P-24-TOP-18



1. TREE TRUNK
2. IF ROOT FLARE IS NOT VISIBLE, REMOVE EXCESS SOIL TO FULLY EXPOSE ROOT FLARE. REMOVE STEM GURDLING, ASCENDING, ENCIRCLING OR KINKED ROOTS AND SUCKERS.
3. ROOT FLARE
4. CORRECTED TOP OF ROOT BALL
5. ROOTBALL

7 ROOT FLARE CORRECTION

NOT TO SCALE — P-24-TOP-06



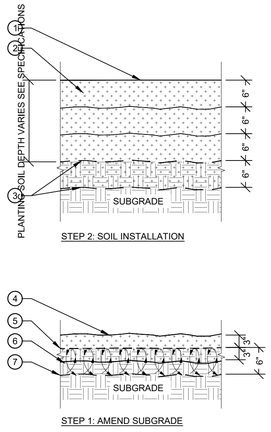
1. LAWN/PLANTING BED
2. AMENDED PLANTING SOIL
3. WEED CONTROL FABRIC
4. ALUMINUM STAKE TO BE 1" BELOW TOP OF EDGING - STAKE PER MANUFACTURER'S RECOMMENDATION
5. EDGING (1/2" ABOVE GRAVEL BED/FINISH GRADE)
6. PEA GRAVEL BED (4" DEPTH)

NOTES:

A. SEE PLANS FOR DISTANCE FROM BUILDING EDGE.
B. POSITIVE DRAINAGE AWAY FROM BUILDING.
C. CORNER INSTALLATION: CUT AT 90 DEGREES AND USE CORNER BRACES WITH METAL STAKES.

8 GRAVEL STRIP ADJACENT TO BUILDING

NOT TO SCALE — P-24-TOP-22



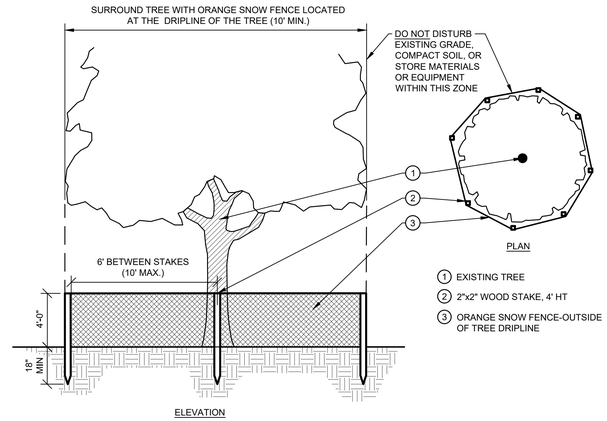
1. FINISH GRADE AFTER SETTLEMENT
2. PLANTING SOIL MIX LAYERS: MAX. 6 INCH LIFTS.
3. TRANSITION LAYER: REFER TO STEP 1 - AMEND SUBGRADE
4. 3" SPECIFIED SOIL MIX LAYER
5. EXISTING GRADE
6. TRANISTION LAYER: TILL AMENDMENT MATERIAL A MINIMUM 3" DEPTH INTO EXISTING SOIL
7. EXISING SOIL RIPPED TO DPETH AS SPECIFIED

NOTES:

1. PLACE AMENDED MATERIAL AFTER RIPPING EXISTING SUBGRADE.
2. AMENDMENT MATERIAL MAY VARY, REFER TO SOIL PLANS.
3. DO NOT PERFORM STEP 2 WITHOUT PERFORMING STEP 1 FIRST.
4. SEE SOIL SPECIFICATIONS FOR MORE INFORMATION.

9 PLANTING SOIL MIX INSTALLATION

3/4" = 1'-0" — P-24-TOP-26



1. EXISTING TREE
2. 2"x2" WOOD STAKE, 4' HT
3. ORANGE SNOW FENCE-OUTSIDE OF TREE DRIPLINE

NOTES:

A. FENCE TO REMAIN IN PLACE THROUGH ENTIRETY OF CONSTRUCTION.
B. DO NOT STAGE CONSTRUCTION MATERIALS, DEBRIS, EXCAVATED MATERIAL OR VEHICLES INSIDE TREE PROTECTION ZONES; PREVENT SOIL COMPACTION OVER ROOT SYSTEMS.
C. DO NOT EXCAVATE WITHIN TREE PROTECTION ZONES UNLESS OTHERWISE INDICATED.
D. WHERE EXCAVATION FOR NEW CONSTRUCTION IS REQUIRED WITHIN THE DRIP LINE OF TREES, HAND CLEAR TO MINIMIZE DAMAGE TO ROOT SYSTEMS.
E. ROOT PRUNING SHALL TAKE PLACE ONLY WHERE THE ROOTS OF EXISTING TREES HAVE BEEN DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, AS DIRECTED BY A CERTIFIED ARBORIST. CUT ROOTS WITH SHARP PRUNING INSTRUMENTS - BREAKING OR CHOPPING IS PROHIBITED.
F. DO NOT FILL WITHIN TREE PROTECTION ZONES, UNLESS OTHERWISE INDICATED.
G. WHEN FILLING FOR NEW CONSTRUCTION IS REQUIRED WITHIN THE DRIP LINE, PERFORM WORK BY HAND TO MINIMIZE DAMAGE TO ROOT SYSTEM.
H. WHERE EXISTING GRADE IS BELOW THE ELEVATION OF FINISH GRADE, FILL WITH TOPSOIL. PLACE TOPSOIL BY HAND IN A SINGLE UNCOMPACTED LAYER AND HAND GRADE TO REDUCED FINISHED ELEVATIONS.
I. AERATE SURFACE SOIL, COMPACTED DURING CONSTRUCTION, 10 FT BEYOND DRIP LINE. DRILL 2 IN DIAMETER HOLES A MINIMUM OF 12 IN DEEP AT 24 IN ON CENTER. BACKFILL HOLES WITH AN EQUAL MIX OF AUGURED SOIL AND SAND.

10 EXISTING TREE PROTECTION FENCING

3/16" = 1'-0" — P-24-TOP-12

Item	Revision Description	Date	Drwn	Chk
1	REVISED PER OWNER REVIEW	02-28-25	LEM	LEM

TOPSS: TALAWANDA OXFORD PANTRY & SOCIAL SERVICES
SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

LANDSCAPE DETAILS

Drawing: 24-0042 LA
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SECTION 32 93 00 - PLANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 SUMMARY
A. SECTION INCLUDES:
1. PLANTS.
2. PLANTING SOILS.
3. MISCELLANEOUS PRODUCTS.

1.3 SUBMITTALS
A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED, INCLUDING SOILS.
1. PLANT MATERIALS: INCLUDE QUANTITIES, SIZES, QUALITY, AND SOURCES FOR PLANT MATERIALS.
2. PESTICIDES AND HERBICIDES: INCLUDE PRODUCT LABEL AND MANUFACTURER'S APPLICATION INSTRUCTIONS SPECIFIC TO THE PROJECT.
B. SAMPLES FOR VERIFICATION: SUBMIT EACH PRODUCT AND MATERIAL WHERE REQUIRED BY THE SPECIFICATIONS TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.
C. PRODUCT CERTIFICATES: FOR EACH TYPE OF MANUFACTURED PRODUCT, FROM MANUFACTURER, AND COMPLYING WITH THE FOLLOWING:
1. MANUFACTURER'S CERTIFIED ANALYSIS OF STANDARD PRODUCTS.
D. MATERIAL TEST REPORTS: FOR STANDARDIZED ASTM D 5268 TOPSOIL, EXISTING NATIVE SURFACE TOPSOIL, AND IMPORTED OR MANUFACTURED TOPSOIL.
E. WARRANTY: SAMPLE OF SPECIAL WARRANTY.

1.4 QUALITY ASSURANCE
A. INSTALLER QUALIFICATIONS: A QUALIFIED LANDSCAPE INSTALLER WHOSE WORK HAS RESULTED IN SUCCESSFUL ESTABLISHMENT OF PLANTS.
1. EXPERIENCE: FIVE YEARS' EXPERIENCE IN LANDSCAPE INSTALLATION IN ADDITION TO REQUIREMENTS IN DIVISION 01 SECTION "QUALITY REQUIREMENTS."
2. INSTALLER'S FIELD SUPERVISION: REQUIRE INSTALLER TO MAINTAIN AN EXPERIENCED FULL-TIME SUPERVISOR ON PROJECT SITE WHEN WORK IS IN PROGRESS.
3. PESTICIDE APPLICATOR: STATE LICENSED, COMMERCIAL.
B. SOIL ANALYSIS: FOR EACH UNAMENDED SOIL TYPE, FURNISH SOIL ANALYSIS AND A WRITTEN REPORT BY A QUALIFIED SOIL-TESTING LABORATORY STATING PERCENTAGES OF ORGANIC MATTER; GRADATION OF SAND, SILT, AND CLAY CONTENT; CATION EXCHANGE CAPACITY; SODIUM ABSORPTION RATIO; DELETERIOUS MATERIAL; PH; AND MINERAL AND PLANT-NUTRIENT CONTENT OF THE SOIL.
1. TESTING METHODS AND WRITTEN RECOMMENDATIONS SHALL COMPLY WITH USDA'S HANDBOOK NO. 60.
2. THE SOIL-TESTING LABORATORY SHALL OVERSEE SOIL SAMPLING; WITH DEPTH, LOCATION, AND NUMBER OF SAMPLES TO BE TAKEN PER INSTRUCTIONS FROM LANDSCAPE LANDSCAPE ARCHITECT. A MINIMUM OF THREE REPRESENTATIVE SAMPLES SHALL BE TAKEN FROM VARIED LOCATIONS FOR EACH SOIL TO BE USED OR AMENDED FOR PLANTING PURPOSES.
3. REPORT SUITABILITY OF TESTED SOIL FOR PLANT GROWTH.
a. BASED UPON THE TEST RESULTS, STATE RECOMMENDATIONS FOR SOIL TREATMENTS AND SOIL AMENDMENTS TO BE INCORPORATED. STATE RECOMMENDATIONS IN WEIGHT PER 1000 SQ. FT. (92.9 SQ. M) OR VOLUME PER CU. YD. (0.76 CU. M) FOR NITROGEN, PHOSPHORUS, AND POTASH NUTRIENTS AND SOIL AMENDMENTS TO BE ADDED TO PRODUCE SATISFACTORY PLANTING SOIL SUITABLE FOR HEALTHY, VIABLE PLANTS.
b. REPORT PRESENCE OF PROBLEM SALTS, MINERALS, OR HEAVY METALS, INCLUDING ALUMINUM, ARSENIC, BARIUM, CADMIUM, CHROMIUM, COBALT, LEAD, LITHIUM, AND VANADIUM. IF SUCH PROBLEM MATERIALS ARE PRESENT, PROVIDE ADDITIONAL RECOMMENDATIONS FOR CORRECTIVE ACTION.
C. PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF PLANTS INDICATED, COMPLYING WITH APPLICABLE REQUIREMENTS IN ANSI Z60.1. PLANTS WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.
a. IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF TREES OR SHRUBS IS SHOWN, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER LABEL TO ASSURE SYMMETRY IN PLANTING.
D. MEASUREMENTS: MEASURE ACCORDING TO ANSI Z60.1. DO NOT PRUNE TO OBTAIN REQUIRED SIZES.
1. TREES AND SHRUBS: MEASURE WITH BRANCHES AND TRUNKS OR CANES IN THEIR NORMAL POSITION. TAKE HEIGHT MEASUREMENTS FROM OR NEAR THE TOP OF THE ROOT FLARE FOR FIELD-GROWN STOCK AND CONTAINER GROWN STOCK. MEASURE MAIN BODY OF TREE OR SHRUB FOR HEIGHT AND SPREAD; DO NOT MEASURE BRANCHES OR ROOTS TIP TO TIP. TAKE CALIPER MEASUREMENTS 6 INCHES (150 MM) ABOVE THE ROOT FLARE FOR TREES UP TO 4-INCH (100-MM) CALIPER SIZE, AND 12 INCHES (300 MM) ABOVE THE ROOT FLARE FOR LARGER SIZES.
2. OTHER PLANTS: MEASURE WITH STEMS, PETIOLES, AND FOLIAGE IN THEIR NORMAL POSITION.
E. PLANT MATERIAL OBSERVATION: LANDSCAPE ARCHITECT MAY OBSERVE PLANT MATERIAL EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, CULTIVAR, SIZE, AND QUALITY. LANDSCAPE ARCHITECT RETAINS RIGHT TO OBSERVE TREES AND SHRUBS FURTHER FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEMS, PESTS, DISEASE SYMPTOMS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED TREES OR SHRUBS IMMEDIATELY FROM PROJECT SITE.

1.5 DELIVERY, STORAGE, AND HANDLING
A. PACKAGED MATERIALS: DELIVER PACKAGED MATERIALS IN ORIGINAL, UNOPENED CONTAINERS SHOWING WEIGHT, CERTIFIED ANALYSIS, NAME AND ADDRESS OF MANUFACTURER, AND INDICATION OF CONFORMANCE WITH STATE AND FEDERAL LAWS IF APPLICABLE.
B. BULK MATERIALS:
1. DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
2. PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS, DISCHARGE OF SOIL-BEARING WATER RUNOFF, AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.
3. ACCOMPANY EACH DELIVERY OF BULK FERTILIZERS, LIME, AND SOIL AMENDMENTS WITH APPROPRIATE CERTIFICATES.
C. DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, WIND BURN, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF PLANTS DURING SHIPPING AND DELIVERY. DO NOT DROP PLANTS DURING DELIVERY AND HANDLING.
D. HANDLE PLANTING STOCK BY ROOT BALL.
E. STORE BULBS, CORMS, AND TUBERS IN A DRY PLACE AT 60 TO 65 DEG F (16 TO 18 DEG C) UNTIL PLANTING.
F. DELIVER PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED, AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET PLANTS AND TREES IN THEIR APPROPRIATE ASPECT (SUN, FILTERED SUN, OR SHADE), PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.
1. SET BALLED STOCK ON GROUND AND COVER BALL WITH SOIL, PEAT MOSS, SAWDUST, OR OTHER ACCEPTABLE MATERIAL.
2. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING.
3. WATER ROOT SYSTEMS OF PLANTS STORED ON-SITE DEEPLY AND THOROUGHLY WITH A FINE-MIST SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN A MOIST, BUT NOT OVERLY-WET CONDITION.

1.6 PROJECT CONDITIONS
A. FIELD MEASUREMENTS: VERIFY ACTUAL GRADE ELEVATIONS, SERVICE AND UTILITY LOCATIONS, IRRIGATION SYSTEM COMPONENTS, AND DIMENSIONS OF PLANTINGS AND CONSTRUCTION CONTIGUOUS WITH NEW PLANTINGS BY FIELD MEASUREMENTS BEFORE PROCEEDING WITH PLANTING WORK.
B. WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS.
C. COORDINATION WITH TURF AREAS (LAWNS): PLANT TREES, SHRUBS, AND OTHER PLANTS AFTER FINISH GRADES ARE ESTABLISHED AND BEFORE PLANTING TURF AREAS UNLESS OTHERWISE INDICATED.
1. WHEN PLANTING TREES, SHRUBS, AND OTHER PLANTS AFTER PLANTING TURF AREAS, PROTECT TURF AREAS, AND PROMPTLY REPAIR DAMAGE CAUSED BY PLANTING OPERATIONS.

1.7 WARRANTY
A. SPECIAL WARRANTY: INSTALLER AGREES TO REPAIR OR REPLACE PLANTINGS AND ACCESSORIES THAT FAIL IN MATERIALS, WORKMANSHIP, OR GROWTH WITHIN SPECIFIED WARRANTY PERIOD.
1. FAILURES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
a. DEATH & UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM ABUSE, LACK OF ADEQUATE MAINTENANCE, OR NEGLECT BY OWNER, OR INCIDENTS THAT ARE BEYOND CONTRACTOR'S CONTROL.
b. STRUCTURAL FAILURES INCLUDING PLANTINGS FALLING OR BLOWING OVER.
c. FAULTY PERFORMANCE OF TREE STABILIZATION, EDGINGS.
d. DETERIORATION OF METALS, METAL FINISHES, AND OTHER MATERIALS BEYOND NORMAL WEATHERING.
2. WARRANTY PERIODS FROM DATE OF PLANTING COMPLETION:
a. TREES, SHRUBS, VINES, AND ORNAMENTAL GRASSES: 12 MONTHS.
b. GROUND COVERS, BIENNIALS, PERENNIALS, AND OTHER PLANTS: 12 MONTHS.
3. INCLUDE THE FOLLOWING REMEDIAL ACTIONS AS A MINIMUM:
a. IMMEDIATELY REMOVE DEAD PLANTS AND REPLACE UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.
b. REPLACE PLANTS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.
c. A LIMIT OF ONE REPLACEMENT OF EACH PLANT WILL BE REQUIRED EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.
d. PROVIDE EXTENDED WARRANTY FOR PERIOD EQUAL TO ORIGINAL WARRANTY PERIOD, FOR REPLACED PLANT MATERIAL.

PART 2 - PRODUCTS

2.1 PLANT MATERIAL
A. GENERAL: FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT SCHEDULE OR PLANT LEGEND SHOWN ON DRAWINGS AND COMPLYING WITH ANSI Z60.1; AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.
1. TREES WITH DAMAGED, CROOKED, OR MULTIPLE LEADERS; TIGHT VERTICAL BRANCHES WHERE BARK IS SQUEEZED BETWEEN TWO BRANCHES OR BETWEEN BRANCH AND TRUNK ("INCLUDED BARK"); CROSSING TRUNKS; CUT-OFF LIMBS MORE THAN 3/4 INCH (19 MM) IN DIAMETER; OR WITH STEM GIRDLING ROOTS WILL BE REJECTED.
2. COLLECTED STOCK: DO NOT USE PLANTS HARVESTED FROM THE WILD, FROM NATIVE STANDS, FROM AN ESTABLISHED LANDSCAPE PLANTING, OR NOT GROWN IN A NURSERY UNLESS OTHERWISE INDICATED.
B. PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 FOR TYPES AND FORM OF PLANTS REQUIRED. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO LANDSCAPE ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.
C. ROOT-BALL DEPTH: FURNISH TREES AND SHRUBS WITH ROOT BALLS MEASURED FROM TOP OF ROOT BALL, WHICH SHALL BEGIN AT ROOT FLARE ACCORDING TO ANSI Z60.1. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.
D. LABELING: LABEL AT LEAST ONE PLANT OF EACH VARIETY, SIZE, AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF COMMON NAME AND FULL SCIENTIFIC NAME, INCLUDING GENUS AND SPECIES. INCLUDE NOMENCLATURE FOR HYBRID, VARIETY, OR CULTIVAR, IF APPLICABLE FOR THE PLANT AS SHOWN ON DRAWINGS. PLANT TAGS SHALL REMAIN ON INSTALLED PLANT MATERIAL UNTIL THE WORK HAS BEEN APPROVED BY LOCAL INSPECTOR AND/OR THE OWNER OR OWNER'S REPRESENTATIVE.

2.2 INORGANIC SOIL AMENDMENTS
A. LIME: ASTM C 602, AGRICULTURAL LIMING MATERIAL CONTAINING A MINIMUM OF 80 PERCENT CALCIUM CARBONATE EQUIVALENT AND AS FOLLOWS:
1. PROVIDE LIME IN FORM OF GROUND DOLOMITIC LIMESTONE PER ASTM 605, CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES AND SHALL BE GROUND TO SUCH A FINENESS THAT 50% WILL PASS THROUGH A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 20 MESH SIEVE. COARSER MATERIAL WILL BE ACCEPTABLE, PROVIDED THE SPECIFIED RATES OF APPLICATION ARE INCREASED PROPORTIONALLY ON THE BASIS OF QUANTITIES PASSING THE 100 MESH SIEVE.
B. SULFUR: GRANULAR, BIODEGRADABLE, AND CONTAINING A MINIMUM OF 90 PERCENT SULFUR, WITH A MINIMUM OF 99 PERCENT PASSING THROUGH NO. 6 (3.35-MM) SIEVE AND A MAXIMUM OF 10 PERCENT PASSING THROUGH NO. 40 (0.425-MM) SIEVE.

2.3 MULCHES
A. ORGANIC MULCH: FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS, CONSISTING OF ONE OF THE FOLLOWING:
1. TYPE: DOUBLE SHREDDED HARDWOOD BARK.

2.4 MISCELLANEOUS PRODUCTS
A. ANTIDESICCANT: WATER-INSOLUBLE EMULSION, PERMEABLE MOISTURE RETARDER, FILM FORMING, FOR TREES AND SHRUBS. DELIVER IN ORIGINAL, SEALED, AND FULLY LABELED CONTAINERS AND MIX ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.
B. TREE-WRAP TAPE: TWO LAYERS OF CRINKLED PAPER CEMENTED TOGETHER WITH BITUMINOUS MATERIAL, 4” WIDE MINIMUM, WITH STRETCH FACTOR 33 PERCENT.
C. PRE-EMERGENT HERBICIDE: TO KILL GENERATING WEED SEEDLINGS, APPLY ONE OF THE FOLLOWING PRE-EMERGENT HERBICIDES AS MANUFACTURER'S RECOMMENDED RATE:
1. ORYZALIN (SURFLAN).
2. SIMAZIN (PRINCEP).
3. TRIFLURALIN (TREFLAN).
D. POST-EMERGENT HERMICIDE: TO KILL EMERGENT WEEDS DURING MAINTENANCE PERIOD, APPLY ONE OF THE FOLLOWING POST-EMERGENT HERBICIDES AT MANUFACTURER'S RECOMMENDED RATE;
1. SETHOXYDIM (POAST)
2. FLUAZIFOP (FUSILADE)

PART 3 - EXECUTION

3.1 EXAMINATION
A. EXAMINE AREAS TO RECEIVE PLANTS FOR COMPLIANCE WITH REQUIREMENTS AND CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE.
1. VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, OR ACID HAS BEEN DEPOSITED IN SOIL WITHIN A PLANTING AREA.
2. DO NOT MIX OR PLACE SOILS AND SOIL AMENDMENTS IN FROZEN, WET, OR MUDDY CONDITIONS.
3. SUSPEND SOIL SPREADING, GRADING, AND TILLING OPERATIONS DURING PERIODS OF EXCESSIVE SOIL MOISTURE UNTIL THE MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS.
4. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE AND WHICH IS TOO DUSTY.
B. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
C. IF CONTAMINATION BY FOREIGN OR DELETERIOUS MATERIAL OR LIQUID IS PRESENT IN SOIL WITHIN A PLANTING AREA, REMOVE THE SOIL AND CONTAMINATION AS DIRECTED BY LANDSCAPE ARCHITECT AND REPLACE WITH NEW PLANTING SOIL.

3.2 PREPARATION
A. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES AND TURF AREAS AND EXISTING PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.
B. INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.
C. LAY OUT INDIVIDUAL TREE AND SHRUB LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS. STAKE LOCATIONS, OUTLINE AREAS, ADJUST LOCATIONS WHEN REQUESTED, AND OBTAIN LANDSCAPE ARCHITECT'S ACCEPTANCE OF LAYOUT BEFORE EXCAVATING OR PLANTING. MAKE MINOR ADJUSTMENTS AS REQUIRED.
D. LAY OUT PLANTS AT LOCATIONS DIRECTED BY LANDSCAPE ARCHITECT. STAKE LOCATIONS OF INDIVIDUAL TREES AND SHRUBS AND OUTLINE AREAS FOR MULTIPLE PLANTINGS.
E. IF EXISTING ECOLOGY CAUSES ADJUSTMENTS OF LANDSCAPE PLANS TO FIT THE SITE CONDITIONS, A STAKE OUT BY LANDSCAPE CONTRACTOR AND ADJUSTMENTS BY LANDSCAPE ARCHITECT SHALL BE REQUIRED PRIOR TO INSTALLATION.
F. APPLY ANTIDESICCANT TO TREES AND SHRUBS USING POWER SPRAY TO PROVIDE AN ADEQUATE FILM OVER TRUNKS (BEFORE WRAPPING), BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT DURING DIGGING, HANDLING, AND TRANSPORTATION.
1. IF DECIDUOUS TREES OR SHRUBS ARE MOVED IN FULL LEAF, SPRAY WITH ANTIDESICCANT AT NURSERY BEFORE MOVING AND AGAIN TWO WEEKS AFTER PLANTING.
G. WRAP TREES AND SHRUBS WITH BURLAP FABRIC OVER TRUNKS, BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT FROM WIND AND OTHER DAMAGE DURING DIGGING, HANDLING, AND TRANSPORTATION.

3.3 PLANTING AREA ESTABLISHMENT
A. LOOSEN SUBGRADE OF PLANTING AREAS TO A MINIMUM DEPTH OF 18 INCHES (450 MM). REMOVE STONES LARGER THAN 1 INCH (25 MM) IN ANY DIMENSION AND STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.
1. APPLY FERTILIZER DIRECTLY TO SUBGRADE BEFORE LOOSENING.
2. SPREAD TOPSOIL, APPLY SOIL AMENDMENTS AND FERTILIZER ON SURFACE, AND THOROUGHLY BLEND PLANTING SOIL.
a. DELAY MIXING FERTILIZER WITH PLANTING SOIL IF PLANTING WILL NOT PROCEED WITHIN A FEW DAYS.
b. MIX LIME WITH DRY SOIL BEFORE MIXING FERTILIZER.
3. SPREAD PLANTING SOIL TO A DEPTH OF 18 INCHES (450 MM) BUT NOT LESS THAN REQUIRED TO MEET FINISH GRADES AFTER NATURAL SETTLEMENT. DO NOT SPREAD IF PLANTING SOIL OR SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET.
B. FINISH GRADING: GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. ROLL AND RAKE, REMOVE RIDGES, AND FILL DEPRESSIONS TO MEET FINISH GRADES.
C. RESTORE PLANTING AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINISH GRADING.
D. ALL PLANTING AREAS SHOWN ON PLANS SHALL BE WITHIN 2" OF FINAL GRADE BEFORE LANDSCAPE CONTRACTOR COMMENCES INSTALLATION.

3.4 EXCAVATION FOR TREES AND SHRUBS
A. PLANTING PITS AND TRENCHES: EXCAVATE CIRCULAR PLANTING PITS WITH SIDES SLOPING INWARD AT A 45-DEGREE ANGLE. EXCAVATIONS WITH VERTICAL SIDES ARE NOT ACCEPTABLE. TRIM PERIMETER OF BOTTOM LEAVING CENTER AREA OF BOTTOM RAISED 8 INCHES TO SUPPORT ROOT BALL AND ASSIST IN DRAINAGE AWAY FROM CENTER. DO NOT FURTHER DISTURB BASE. ENSURE THAT ROOT BALL WILL SIT ON UNDISTURBED BASE SOIL TO PREVENT SETTLING. SCARIFY SIDES OF PLANTING PIT SMEARED OR SMOOTHED DURING EXCAVATION.
1. EXCAVATE APPROXIMATELY THREE TIMES AS WIDE AS BALL DIAMETER FOR BALLED AND BURLAPPED STOCK.
2. EXCAVATE AT LEAST 12 INCHES (300 MM) WIDER THAN ROOT SPREAD AND DEEP ENOUGH TO ACCOMMODATE VERTICAL ROOTS FOR BARE-ROOT STOCK.
3. IF DRAIN TILE IS SHOWN ON DRAWINGS OR REQUIRED UNDER PLANTING AREAS, EXCAVATE TO TOP OF POROUS BACKFILL OVER TILE.
B. SUBSOIL AND TOPSOIL REMOVED FROM EXCAVATIONS MAY BE USED AS PLANTING SOIL PROVIDED IT IS FREE OF ROCKS OR OTHER DELETERIOUS MATERIALS.
C. OBSTRUCTIONS: NOTIFY LANDSCAPE ARCHITECT IF UNEXPECTED ROCK OR OBSTRUCTIONS DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNTERED IN EXCAVATIONS.
D. DRAINAGE: NOTIFY LANDSCAPE ARCHITECT IF SUBSOIL CONDITIONS EVIDENCE UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PLANTING PITS.
E. FILL EXCAVATIONS WITH WATER AND ALLOW TO PERCOLATE AWAY BEFORE POSITIONING TREES AND SHRUBS.

3.5 TREE, SHRUB, AND VINE PLANTING
A. BEFORE PLANTING, VERIFY THAT ROOT FLARE IS VISIBLE AT TOP OF ROOT BALL ACCORDING TO ANSI Z60.1. IF ROOT FLARE IS NOT VISIBLE, REMOVE SOIL IN A LEVEL MANNER FROM THE ROOT BALL TO WHERE THE TOP-MOST ROOT EMERGES FROM THE TRUNK. AFTER SOIL REMOVAL TO EXPOSE THE ROOT FLARE, VERIFY THAT ROOT BALL STILL MEETS SIZE REQUIREMENTS.
B. REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS. REMOVE INJURED ROOTS BY CUTTING CLEANLY; DO NOT BREAK.
C. SET BALLED AND BURLAPPED STOCK PLUMB AND IN CENTER OF PLANTING PIT OR TRENCH WITH ROOT FLARE 1 INCH (25 MM) ABOVE ADJACENT FINISH GRADES.
D. SET CONTAINER-GROWN STOCK PLUMB AND IN CENTER OF PLANTING PIT OR TRENCH WITH ROOT FLARE 1 INCH (25 MM) ABOVE ADJACENT FINISH GRADES.
1. CAREFULLY REMOVE ROOT BALL FROM CONTAINER WITHOUT DAMAGING ROOT BALL OR PLANT.
2. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE MIX AND ELIMINATE VOICE AND AIR POCKETS. WHEN PIT IS APPROXIMATELY ONE-HALF BACKFILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS ABSORBED. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF PLANTING SOIL MIX.
E. AFTER THE LANDSCAPE ARCHITECT HAS EXAMINED THE TRUNKS OF NEW INSTALLED TREES, WRAP TREES OF 2-INCH CALIPER AND LARGER WITH TREE-WRAP TAPE. START AT THE BASE OF THE TRUNK AND SPIRAL COVER THE TRUNK TO THE HEIGHT OF THE FIRST BRANCHES. OVERLAP THE WRAP, EXPOSING HALF THE WIDTH, AND SECURELY ATTACH WITHOUT CAUSING GIRDLING. INSPECT TREE TRUNKS FOR INJURY, IMPROPER PRUNING, AND INSECT INFESTATION; TAKE CORRECTIVE MEASURES REQUIRED BEFORE TREE WRAPPING.

3.6 TREE, SHRUB, AND VINE PRUNING
A. REMOVE ONLY DEAD, DYING, OR BROKEN BRANCHES. DO NOT PRUNE FOR SHAPE.
B. PRUNE, THIN, AND SHAPE TREES, SHRUBS, AND VINES AS DIRECTED BY LANDSCAPE ARCHITECT.
C. PRUNE, THIN, AND SHAPE TREES, SHRUBS, AND VINES ACCORDING TO STANDARD PROFESSIONAL HORTICULTURAL AND ARBORICULTURAL PRACTICES. UNLESS OTHERWISE INDICATED BY LANDSCAPE ARCHITECT, DO NOT CUT TREE LEADERS; REMOVE ONLY INJURED, DYING, OR DEAD BRANCHES FROM TREES AND SHRUBS; AND PRUNE TO RETAIN NATURAL CHARACTER.
D. DO NOT APPLY PRUNING PAINT TO WOUNDS.

3.7 GROUND COVER AND PLANT PLANTING
A. SET OUT AND SPACE GROUND COVER AND PLANTS OTHER THAN TREES, SHRUBS, AND VINES AS INDICATED IN EVEN ROWS WITH TRIANGULAR SPACING.
B. DIG HOLES LARGE ENOUGH TO ALLOW SPREADING OF ROOTS.
C. WORK SOIL AROUND ROOTS TO ELIMINATE AIR POCKETS AND LEAVE A SLIGHT SAUCER INDENTATION AROUND PLANTS TO HOLD WATER.
D. WATER THOROUGHLY AFTER PLANTING, TAKING CARE NOT TO COVER PLANT CROWNS WITH WET SOIL.
E. PROTECT PLANTS FROM HOT SUN AND WIND; REMOVE PROTECTION IF PLANTS SHOW EVIDENCE OF RECOVERY FROM TRANSPLANTING SHOCK.

3.8 PLANTING AREA MULCHING
A. INSTALL WEED-CONTROL BARRIERS BEFORE MULCHING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. COMPLETELY COVER AREA TO BE MULCHED, OVERLAPPING EDGES A MINIMUM OF 6 INCHES (150 MM) AND SECURE SEAMS WITH GALVANIZED PINS. PINS TO BE 8"-10" APART ALONG EDGES AND 12" MINIMUM IN CENTER.
B. MULCH BACKFILLED SURFACES OF PLANTING AREAS AND OTHER AREAS INDICATED.
1. TREES AND TREE-LIKE SHRUBS IN TURF AREAS: APPLY ORGANIC MULCH RING OF 4-INCH (75-MM)] AVERAGE THICKNESS, WITH 36-INCH (900-MM) RADIUS AROUND TRUNKS OR STEMS. DO NOT PLACE MULCH WITHIN 3 INCHES (75 MM) OF TRUNKS OR STEMS OR VOLCANO MULCH.
2. ORGANIC MULCH IN PLANTING AREAS: APPLY 2-INCH (50-MM) AVERAGE THICKNESS OF ORGANIC MULCH EXTENDING 12 INCHES (300 MM) BEYOND EDGE OF INDIVIDUAL PLANTING PIT OR TRENCH AND OVER WHOLE SURFACE OF PLANTING AREA, AND FINISH LEVEL WITH ADJACENT FINISH GRADES. DO NOT PLACE MULCH WITHIN 3 INCHES (75 MM) OF TRUNKS OR STEMS.

3.9 PLANT MAINTENANCE
A. MAINTAIN PLANTINGS BY PRUNING, CULTIVATING, WATERING, WEEDING, FERTILIZING, MULCHING, RESTORING PLANTING SAUCERS, ADJUSTING AND REPAIRING TREE-STABILIZATION DEVICES, RESETTING TO PROPER GRADES OR VERTICAL POSITION, AND PERFORMING OTHER OPERATIONS AS REQUIRED TO ESTABLISH HEALTHY, VIABLE PLANTINGS. SPRAY OR TREAT AS REQUIRED TO KEEP TREES AND SHRUBS FREE OF INSECTS AND DISEASE.
a. WATER EXISTING PROTECTED TREES AND VEGETATION WITH ONE INCH OF RAIN (RAIN GAUGE OR NOAH LOCAL WEATHER VERIFIED) PER WEEK FOR DURATION OF CONSTRUCTION PROJECT.
B. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING OR OTHER PROCESSES. REPLACE MULCH MATERIALS DAMAGED OR LOST IN AREAS OF SUBSIDENCE.
C. APPLY TREATMENTS AS REQUIRED TO KEEP PLANT MATERIALS, PLANTED AREAS, AND SOILS FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PAST MANAGEMENT PRACTICES WHENEVER POSSIBLE TO MINIMIZE THE USE OF PESTICIDES AND REDUCE HAZARDS. TREATMENTS INCLUDE PHYSICAL CONTROLS SUCH AS HOSING OFF FOLIAGE, MECHANICAL CONTROLS SUCH AS TRAPS, AND BIOLOGICAL CONTROL AGENTS.

3.10 PESTICIDE APPLICATION
A. APPLY PESTICIDES AND OTHER CHEMICAL PRODUCTS AND BIOLOGICAL CONTROL AGENTS IN ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S WRITTEN RECOMMENDATIONS. COORDINATE APPLICATIONS WITH OWNER'S OPERATIONS AND OTHERS IN PROXIMITY TO THE WORK. NOTIFY OWNER BEFORE EACH APPLICATION IS PERFORMED.
B. PRE-EMERGENT HERBICIDES (SELECTIVE AND NON-SELECTIVE): APPLY TO TREE, SHRUB, AND GROUND-COVER AREAS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS. DO NOT APPLY TO SEEDED AREAS.
C. POST-EMERGENT HERBICIDES (SELECTIVE AND NON-SELECTIVE): APPLY ONLY AS NECESSARY TO TREAT ALREADY-GERMINATED WEEDS AND IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.

3.11 CLEANUP AND PROTECTION
A. DURING PLANTING, KEEP ADJACENT PAVING AND CONSTRUCTION CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
B. PROTECT PLANTS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS AND OPERATIONS OF OTHER CONTRACTORS AND TRADES WITHIN 20' OF CONSTRUCTION DISTURBANCE. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED PLANTINGS.
C. INSTALL MINIMUM 4' TALL FENCE 5' OUTSIDE THE DRIP LINE OF TREES TO REMAIN.
D. AFTER INSTALLATION AND AFTER WORK HAS BEEN APPROVED BY LOCAL INSPECTOR AND/OR OWNER OR OWNER'S REPRESENTATIVE, REMOVE NURSERY TAGS, NURSERY STAKES, TIE TAPE, LABELS, WIRE, BURLAP, AND OTHER DEBRIS FROM PLANT MATERIAL, PLANTING AREAS, AND PROJECT SITE.

3.12 DISPOSAL
A. REMOVE SURPLUS SOIL AND WASTE MATERIAL INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.

END OF SECTION 32 93 00

SECTION 31 14 00 - SITE RESTORATION OF LANDSCAPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
G. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 SUMMARY
A. SECTION INCLUDES:
1. SPREAD AND CONDITION EXISTING STOCKPILED TOPSOIL
2. PROVIDE NEW, IF REQUIRED; LIME
3. TILL, DISTRIBUTE AND GRADE TOPSOIL
4. CLEAN UP

1.3 SUBMITTALS (SUBMIT ALL THE FOLLOWING REPORTS, IN TRIPLICATE, TO OWNER FOR REVIEW)
A. LABORATORY TESTS: SUBMIT COPIES OF TOPSOIL LABORATORY TESTS TO THE OWNER.
B. FERTILIZER: SUBMIT COPIES ATTESTING TO THE FERTILIZER COMPOSITION TO THE OWNER.
C. SEED MIX: SUBMIT COPIES ATTESTING TO THE SEED MIX COMPOSITION TO THE OWNER.
D. SOD: SUBMIT COPIES FROM THE SOD SOURCE ATTESTING TO THE SEED MIX COMPOSITION TO THE OWNER.

1.4 SITE PROTECTION
A. PROTECT EXISTING GROUNDS, PLANTS, LAWNS AND VEGETATION TO REMAIN.
1. PROTECT EXISTING TREES TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING, SKINNING, OR BRUISING OF ROOTS AND BARK, SMOTHERING OF TREES BY COMPACTION OR STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN FIVE FEET OF OUTER EDGE OF DRIP LINE.
a. ERECT MINIMUM OF FOUR (4) FOOT HIGH FENCE FIVE (5) FEET OUTSIDE DRIP LINE OF TREES TO REMAIN.
b. ERECT TREE PROTECTION BEFORE STARTING SITE WORK OF ANY KIND. MAINTAIN FENCING DURING CONSTRUCTION PERIOD.
c. INTERFERING BRANCHES MAY ONLY BE REMOVED WITH PRIOR CONSENT FROM LANDSCAPE ARCHITECT.
d. IDENTIFY ANY TREES LANDSCAPE ARCHITECT WOULD LIKE VERTICALLY MULCHED, TRIMMED OR REPAIRED AS RESULT OF CONSTRUCTION IMPACT AT END OF PROJECT. ALL WORK TO BE DONE BY A CERTIFIED ARBORIST TO BE APPROVED BY LANDSCAPE ARCHITECT.
2. WATER TREES AND VEGETATION TO REMAIN WITH ONE INCH OF RAIN (RAIN GAUGE OR NOAH LOCAL WEATHER VERIFIED) PER WEEK FOR DURATION OF CONSTRUCTION PROJECT.
3. CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO PLANTS TO REMAIN. COST FOR TREE REPLACEMENT SHALL BE DETERMINED IN ACCORDANCE WITH THE “GUIDE FOR PLANT APPRAISAL” BY THE COUNCIL OF TREE AND LANDSCAPE APPRAISERS (INTERNATIONAL SOCIETY OF AGRICULTURE, PUBLICATION #P1209).

B. TEMPORARY CONSTRUCTION ACCESS: PROJECT SITE ACCESS AND EQUIPMENT ACCESS ROUTES WITHIN THE PROJECT SITE MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO COMMENCEMENT OF WORK. ANY TEMPORARY GRAVEL PATH OR ACCESS WAY MUST INCLUDE A GEOFABRIC LINER TO ENSURE FULL REMOVAL OF GRAVEL/ STONE FROM PROJECT SITE AT PROJECT COMPLETION.

1.5 STRIPPING AND STORAGE OF EXISTING TOPSOIL
A. STRIP TOPSOIL TO FULL DEPTH AT AREAS IMPACTED & AT ALL AREAS TO BE RE-GRADED OR RESURFACED.
B. STOP TOPSOIL STRIPPING OUTSIDE DRIP LINE OF TREES TO REMAIN / DO NOT STRIP AS TO IMPACT ROOT LINE OF TREES TO REMAIN.
C. DISPOSE OF ROOTS, STONE AND OTHER DEBRIS; STORE TOPSOIL IN PILES WITHIN THE WORK LIMITS.
1. OBTAIN APPROVAL OF LANDSCAPE ARCHITECT PRIOR TO ESTABLISHING TOPSOIL STORAGE AREAS.
2. GRADE AND SLOPE STOCKPILES FOR PROPER DRAINAGE AND TO PREVENT EROSION
D. THE REUSE OF STOCKPILED TOPSOIL WITHIN THE PROJECT SITE MUST BE APPROVED FOR PLACEMENT BY THE LANDSCAPE ARCHITECT.

PART 2 - PRODUCTS AND MATERIALS

2.1 TOPSOIL
A. ALL TOPSOIL SHALL BE SHREDDED, CLEAN, AND OF UNIFORM QUALITY FREE FROM HARD CLODS, STIFF CLAY, PARTIALLY DISINTEGRATED STONE, LIME, CEMENT, SLAG, OR OTHER UNDESIRABLE MATERIAL. TOPSOIL SHALL CONFORM TO THE FOLLOWING:
1. ORGANIC CONTENT: TOPSOIL SHALL CONTAIN BETWEEN 3% AND 10% ORGANIC MATTER AS DETERMINED BY LOSS OF IGNITION.
2. PH: TOPSOIL PH SHALL RANGE BETWEEN 6.0 AND 7.5
3. SOIL TEXTURE: TOPSOIL SHALL CONSIST OF THE FOLLOWING PERCENTAGES OF SAND, SILT, AND CLAY PASSING THROUGH A 2.00MM (#10) SIEVE:
a. SAND: 30% TO 75%
b. SILT: 15% TO 70%
c. CLAY: 10% TO 30%
B. TOPSOIL MUST BE APPROVED BY GROUNDS MANGER PRIOR TO PLACEMENT. TOPSOIL TEST RESULTS SHALL SHOW RECOMMENDATION FOR SOIL ADDITIVES OR FERTILIZERS TO CORRECT NUTRIENT DEFICIENCIES AS NECESSARY. ALL SOIL AMENDMENTS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO USE.

2.2 GRASS SEED
A. GRASS SEED SHALL BE A TURF-TYPE TALL FESCUE BLEND SUCH AS TROPHY XRE TURF-TYPE TALL FESCUE BLEND OR APPROVED EQUAL BLEND WITH FRESH, CLEAN, NEW CROP SEED MIXTURES.
B. SEED MIXTURE SHALL BE POA-FREE MEETING OREGON STATE STANDARDS FOR NOXIOUS WEED EXAMS.
C. SEED MIXTURE FOR RECREATION FIELDS SHALL BE AS DIRECTED BY THE LANDSCAPE ARCHITECT.

2.3 SOD
A. LANDSCAPE ARCHITECT APPROVED NURSERY GROWN TURF-TYPE TALL FESCUE BLEND SUITABLE FOR JOB SPECIFIC EXPOSURE, WEARABILITY, AND DISEASE RESISTANCE CONFORMING TO THE FOLLOWING PERCENTAGES OF GRASS TYPE:
1. 100% - TURF TYPE TALL FESCUE
B. PROVIDE WELL-ROOTED, HEALTHY SOD, FREE OF DISEASES, NEMATODES, AND SOIL BORNE INSECTS. PROVIDE SOD IN UNIFORM COLOR, LEAF, TEXTURE, DENSITY, AND FREE OF WEEDS, UNDESIRABLE GRASSES, CAPABLE OF GROWTH AND DEVELOPMENT WHEN PLANTED. SOD IS CONSIDERED FREE OF WEEDS IF LESS THAN 5 WEEDS ARE FOUND PER 100 SQ. FT.
C. FURNISH SOD MACHINE STRIPPED AND OF SUPPLIER'S STANDARD WIDTH AND LENGTH; UNIFORMLY 1” TO 1-1/2” THICK WITH CLEAN CUT EDGES. SOD SHALL BE RELATIVELY FREE OF THATCH, UP TO ½” PERMISSIBLE. SOD SHALL BE MOWED UNIFORMLY BEFORE HARVESTING
D. DELIVERY, STORAGE, AND HANDLING: SOD SHALL BE HARVESTED, DELIVERED, AND TRANSPORTED WITHIN A PERIOD OF TWENTY-FOUR (24) HOURS.
1. DO NOT HARVEST OR TRANSPORT SOD WHEN MOISTURE CONTENT MAY ADVERSELY AFFECT SOD SURVIVAL.
2. PROTECT SOD FROM SUN, WIND, AND DEHYDRATION PRIOR TO INSTALLATION.
3. DO NOT TEAR, STRETCH, OR DROP SOD DURING HANDLING AND INSTALLATION.

2.4 FERTILIZER
A. GRANULAR, NON-BURNING PRODUCE COMPOSED OF NOT LESS THAN 50% ORGANIC SLOW ACTING, GUARANTEED ANALYSIS PROFESSIONAL FERTILIZER CONFORMING TO THE FOLLOWING:
1. TYPE A: STARTER FERTILIZER CONTAINING 20% NITROGEN, 26% PHOSPHORIC ACID, AND 6% POTASH BY WEIGHT, OR SIMILAR APPROVED COMPOSITION.
2. TYPE B: SECONDARY FERTILIZER CONTAINING 31% NITROGEN, 3% PHOSPHORIC ACID, AND 10% POTASH BY WEIGHT, OR SIMILAR APPROVED COMPOSITION.

2.5 GRASS SEED MULCH
A. GREEN DYED CELLULOSE OR WOOD FIBER MULCH SUCH AS CONWED HYDROMULCH, WEYERHAUSER SILVA-FIBER OR CLEAN FRESH STRAW.

2.6 WATER
A. CLEAN, POTABLE AND FREE OF SUBSTANCE HARMFUL TO LAWN GROWTH. LAWN WATERING EQUIPMENT, HOSES OR OTHER METHODS OF WATER TRANSPORTATION FURNISHED BY CONTRACTOR.

PART 3 - EXECUTION

3.1 PREPARATION OF SEED BED/ SODDED AREAS
A. DE-COMPACTION: DE-COMPACT AREAS HEAVILY TRAFFICKED BY CONSTRUCTION ACTIVITIES WITH HOE OR OTHER LANDSCAPE ARCHITECT APPROVED METHOD PRIOR TO ROUGH GRADING.
B. ROUGH GRADING: GRADE SURFACES TO ASSURE DRAINAGE AWAY FROM STRUCTURES AND TO PREVENT PONDING AND POCKETS OF SURFACE DRAINAGE. PROVIDE SUBGRADE FREE FROM IRREGULAR SURFACE CHANGES AND AS FOLLOWS:
1. ROUGH GRADE SHALL EQUAL PLUS/ MINUS 0.20 FT., SUB GRADE TOLERANCE SHALL BE FREE OF EXPOSED BOULDERS OR STONES EXCEEDING 1” IN GREATEST DIMENSION.
2. FILL IN ALL AREAS OF SETTLEMENT TO PROPER GRADE BEFORE SUBSEQUENT PLACEMENT OF TOPSOIL.
C. TOPSOIL DEPTHS:
1. LAWN: AREAS TO RECEIVE SOD OR SEED MUST HAVE MINIMUM SIX (6) INCHES AVERAGE DEPTH OF TOPSOIL PLACED.
2. PLANTED BEDS: AREAS IDENTIFIED AS PLANTING BEDS SHALL HAVE MINIMUM TWELVE (12) INCHES AVERAGE DEPTH OF TOPSOIL PLACED.
D. FINE GRADING: GRADE AREA TO A SMOOTH, FREE DRAINING EVEN SURFACE WITH A LOOSE, MODERATELY COURSE TEXTURE. ROLL, SCARIFY, RAKE AND LEVEL AS NECESSARY TO OBTAIN A TRUE, EVEN LAWN SURFACE AND FILL DEPRESSIONS AS REQUIRED TO DRAIN. SEED BED TO BE APPROXIMATELY ½” - 1” BELOW ALL SIDEWALKS AND CURBS. DO NOT MOVE HEAVY OBJECTS EXCEPT NECESSARY LAWN MAKING EQUIPMENT OVER THE LAWN AREAS AFTER THE SOIL IS PREPARED UNLESS IT IS LOOSENED AND RE-GRADED. RESTORE PREPARED AREAS TO SPECIFIED CONDITION IF ERODED, SETTLED, OR OTHERWISE DISTURBED AFTER FINE GRADING.
E. FERTILIZING: APPLY TYPE A / STARTER FERTILIZER TO INDICATED TURF AREAS AT A RATE EQUAL TO 1.0 LB. OF ACTUAL NITROGEN PER 1,000 S.F. OR AS DIRECTED BY LANDSCAPE ARCHITECT. APPLY FERTILIZERS BY MECHANICAL DROP OR ROTARY DISTRIBUTOR, THOROUGHLY AND EVENLY INCORPORATED WITH SOIL TO A DEPTH OF 3” BY DICING OR OTHER APPROVED METHOD. FERTILIZE AREAS INACCESSIBLE TO POWER EQUIPMENT WITH HAND TOOLS AND INCORPORATE INTO SOIL.

3.2 INSTALLATION OF GRASS SEED
A. LANDSCAPE CONTRACTOR SHALL SEED ALL DISTURBED AREAS. THE FINAL GRADE AND TOPSOIL WITHIN +/- .10 FEET WILL BE IN PLACE FOR SEEDING CONTRACTOR.
B. GRASS SEED SHALL ONLY BE SOWN AT THE FOLLOWING TIMES:
a. SPRING SEED PLANTING: APRIL 1 TO JUNE 1
b. FALL SEED PLANTING: AUGUST 15 TO OCTOBER 1
c. OR AS APPROVED BY THE LANDSCAPE ARCHITECT
C. PERFORM SEEDING WORK ONLY AFTER PLANTING AND OTHER WORK AFFECTING THE GROUND SURFACE HAVE BEEN COMPLETED. LIMIT PREPARATION OF SEED AREAS TO THOSE READY FOR IMMEDIATE SEEDING.
D. SEED IMMEDIATELY AFTER PREPARATION OF BED.
E. PERFORM SEEDING OPERATIONS WHEN SOIL IS DRY AND WHEN WINDS DO NOT EXCEED FIVE MILES PER HOUR.

F. SEEDING
a. TO BE APPLIED AT APPROVED MANUFACTURED RATES IN CROSS DIRECTIONS WITH APPROVED SEED DRILLING OR SLICE SEEDING EQUIPMENT. APPLY 50% OF THE SEED IN EACH DIRECTION.
b. APPLY HYDRO-MULCH WITH APPROVED HYDRO-MULCH EQUIPMENT IMMEDIATELY AFTER SEEDING. SLURRY TO BE COMPOSED OF CLEAN WATER AND MULCH. APPLY MULCH SLURRY AT MINIMUM RATE OF 1,500 POUNDS PER ACRE ON SLOPES STEEPER THAN 4:1. DIRECT SLURRY TO EVENLY COVER DESIGNATED SEED AREAS. REPAIR RUTS, DEPRESSIONS AND ALL DAMAGE CAUSED BY HYDRO-MULCHING EQUIPMENT.
c. IMMEDIATELY RESEED AND REAPPLY HYDRO-MULCH TO AREAS THAT SHOW POOR GERMINATION.

G. HYDROMULCHING
a. CONTRACTOR SHALL APPLY CELLULOSE FIBER MULCH AT A MINIMUM RATE OF 1500 POUNDS PER ACRE AND FERTILIZERS: BEST 6-20-20 OR BEST 15-15-15 OR APPROVED EQUAL APPLIED AT RATE APPROPRIATE FOR PRODUCT. ORGANIC TACKIFIER SHALL BE APPLIED AT RATE OF 70 POUNDS PER ACRE. HYDROSEED SEED MIX SHALL BE APPLIED AT THE 2,000 POUNDS PER ACRE.
b. CONTRACTOR SHALL WATER ALL PLANT AREAS THOROUGHLY TO SATURATE UPPER LAYERS OF SOIL PRIOR TO THE HYDROSEEDING OPERATION. ALLOW THE PLANTING AREA SOIL SURFACE TO DRY OUT FOR ONE DAY ONLY PRIOR TO THE HYDROSEEDING APPLICATION.
c. CONTRACTOR SHALL APPLY THE HYDROSEEDING IN THE FORM OF A SLURRY CONSISTING OF ORGANIC SOIL AMENDMENTS, COMMERCIAL FERTILIZER, AND ANY OTHER CHEMICALS THAT ARE CALLED OUT. WHEN HYDRAULICALLY SPRAYED ONTO THE SOIL, THE MULCH SHALL FORM A BLOTTER-LIKE MATERIAL. SPRAY THE AREA WITH A UNIFORM VISIBLE COAT, USING THE DARK COLOR OF THE CELLULOSE FIBER AS A VISUAL GUIDE. THE SLURRY SHALL BE APPLIED IN A DOWNWARD DRILLING MOTION VIA A FAN STREAM NOZZLE. CONTRACTOR SHALL INSURE THAT ALL OF THE SLURRY COMPONENTS ENTER AND MIX WITH THE SOIL.
d. IF SLURRY COMPONENTS ARE LEFT FOR MORE THAN TWO HOURS IN THE MACHINE, ADD 50% MORE OF THE ORIGINALLY SPECIFIED SEED MIX TO ANY SLURRY MIXTURE WHICH HAS NOT BEEN APPLIED WITHIN THE TWO HOURS AFTER MIXING. ADD 75% MORE OF THE ORIGINAL SEED MIX TO ANY SLURRY MIXTURE WHICH HAS NOT BEEN APPLIED EIGHT (8) HOURS AFTER MIXING. ALL MIXTURES MORE THAN EIGHT (8) HOURS OLD, SHALL BE DISPOSED, OFFSITE, AT THE CONTRACTOR'S EXPENSE.
e. CONTRACTOR SHALL REMOVE ALL SLURRY SPRAYED ONTO HARDSCAPE AREAS INCLUDING CONCRETE WALKS, FENCES, WALLS, BUILDINGS, ETC. AT THE CONTRACTOR'S EXPENSE.
f. CONTRACTOR SHALL SAVE ALL SEED AND FERTILIZER TAGS AND FIBER MULCH BAGS FOR THE LANDSCAPE ARCHITECT TO VERIFY COMPLIANCE WITH THE DRAWINGS AND SPECIFICATIONS.

3.3 INSTALLATION OF SOD (IF APPLICABLE)
A. PERFORM SODDING WORK ONLY AFTER PLANTING AND OTHER WORK AFFECTING THE GROUND SURFACE HAVE BEEN COMPLETED. LIMIT PREPARATION OF SODDED AREAS TO THOSE READY FOR IMMEDIATE SODDING.
B. SOD IMMEDIATELY AFTER PREPARATION OF BED.
C. INSTALL INITIAL ROW OF SOD IN A STRAIGHT LINE, BEGINNING AT BOTTOM OF SLOPES, PERPENDICULAR TO DIRECTION OF THE SLOPED AREA. PLACE SUBSEQUENT ROWS PARALLEL TO AND TIGHTLY AGAINST PREVIOUSLY INSTALLED ROW.
D. LAY SOD TO FORM A SOLID MASS WITH TIGHTLY FITTED JOINTS. SOD STRIPS SHALL BUTT CLOSE TOGETHER WITH NO VOIDS BETWEEN THE PIECES. CARE SHALL BE EXERCISED TO ENSURE THAT THE SOD IS NOT STRETCHED OR OVERLAPPED. LATERAL JOINTS SHALL BE STAGGERED. REMOVE EXCESS SOD TO AVOID SMOTHERING OF ADJACENT GRASS. PROVIDE SOD PAD TOP FLUSH WITH ADJACENT CURBS, SIDEWALKS, DRAINS, AND SEEDED AREAS.
E. TO ENHANCE ROOTING, MOISTEN THE SOIL TO A DEPTH OF FOUR (4) TO SIX (6) INCHES TWENTY-FOUR (24) HOURS BEFORE LAYING SOD. DO NOT LAY SOD ON A HOT DRY SOIL SURFACE.
F. DO NOT LAY, PLACE OR INSTALL DORMANT SOD PADS ON SATURATED OR FROZEN SOIL.
G. PEG SOD ON SLOPES GREATER THAN 3:1 TO PREVENT SLIPPAGE AT A RATE OF TWO STAKES PER YD. OF SOD.
H. WATER SOD THOROUGHLY WITH A FINE SPRAY IMMEDIATELY AFTER LAYING/INSTALLATION.
I. ROLL WITH LIGHT LAWN ROLLER TO ENSURE CONTACT WITH SUB-GRADE.

3.4 MAINTENANCE
A. WATERING AND MAINTENANCE ACTIVITIES MUST BE REVIEWED AND APPROVED WITH THE LANDSCAPE ARCHITECT. UNLESS OTHERWISE APPROVED, THE FOLLOWING REQUIREMENTS ARE TO BE COMPLETED AT A MINIMUM:
1. MAINTAIN NEW INSTALLED SEEDED/ SODDED LAWN AREAS IN AN ACCEPTABLE MANNER UNTIL FINAL ACCEPTANCE OF PROJECT, INCLUDING WATERING, SPOT WEEDING, MOWING, TRIMMING, REMOVAL OF CLIPPINGS, LEAF REMOVAL, APPLICATION OF HERBICIDES, FUNGICIDES, INSECTICIDES, AND RE-SEEDING UNTIL A FULL, UNIFORM STAND OF GRASS FREE OF WEED, UNDESIRABLE GRASS SPECIES, DISEASE, AND INSECTS IS ACHIEVED AND ACCEPTED BY THE LANDSCAPE ARCHITECT.
2. WATER DAILY TO MAINTAIN ADEQUATE SURFACE SOIL MOISTURE FOR PROPER SEED GERMINATION. CONTINUE DAILY WATERING FOR NOT LESS THAN THIRTY (30) DAYS. THEREAFTER APPLY ONE-HALF (1/2) INCH WATER EVERY TWO OR THREE DAYS UNTIL ACCEPTED.
3. REPAIR, RE-WORK, RE-SEED, AND OR SOD ALL RESPECTIVE AREAS THAT HAVE WASHED OUT, ARE ERODED, OR DID NOT CATCH.
4. SET MOWER BLADES AT A MINIMUM HEIGHT OF TWO AND ONE-HALF (2-1/2) INCHES. NOT MORE THAN THIRTY (30) PERCENT OF THE GRASS LEAF/BLADE SHALL BE REMOVED AT THE INITIAL OR SUBSEQUENT MOWING. MOW ALL LAWNS BEFORE TURF REACHES A HEIGHT OF FOUR (4) INCHES.
5. IF INFESTATION OF WEEDS OR CRABGRASS DEVELOPS, TREAT INFESTATION BY HAND WEEDING OR HERBICIDAL CONTROL. FURNISH AND INSTALL WEED CHEMICAL CONTROL AS RECOMMENDED BY MANUFACTURER. HERBICIDAL CONTROLS, INCLUDING RENOVATION BEFORE SEEDING OPERATIONS, SHALL BE ACCEPTABLE TO THE LANDSCAPE ARCHITECT.
6. APPLY TYPE B FERTILIZER TO LAWNS APPROXIMATELY THIRTY (30) DAYS AFTER INSTALLATION AT A RATE EQUAL TO 1.0 LB. OF ACTUAL NITROGEN PER 1,000 SQ. FT. APPLY WITH MECHANICAL DROP OR ROTARY TYPE DISTRIBUTOR. WATER THE FERTILIZER THOROUGHLY INTO THE SOIL.
B. PROVIDE EROSION CONTROL MEASURES TO ADEQUATELY SLOW WATER AND IMPEDE SOIL LOSS AS REQUIRED AND DIRECTED BY THE LANDSCAPE ARCHITECT.
1. EROSION CONTROL BLANKETS TO BE USED ON SEEDED SLOPES GREATER THAN 3:1.
2. FIBER ROLLS TO BE USED ON SEEDED SLOPES GREATER THAN 2:1.
3. STRAW BALE CHECKING OR OTHER APPROVED DEVICE IN DITCHES OR ERODED SWALES AS REQUIRED.

3.5 ACCEPTANCE
A. INSPECTION TO DETERMINE ACCEPTANCE OF INSTALLED LAWNS WILL BE MADE BY THE LANDSCAPE ARCHITECT, UPON CONTRACTOR'S REQUEST. PROVIDE NOTIFICATION AT LEAST THREE (3) WORKING DAYS BEFORE REQUESTED INSPECTION DATE.
1. NEW LAWN AREAS WILL BE ACCEPTABLE PROVIDED ALL REQUIREMENTS, INCLUDING MAINTENANCE, HAVE BEEN COMPLIED WITH, AND A HEALTHY UNIFORM, CLOSE STAND OF GRASS IS ESTABLISHED FREE OF WEEDS, UNDESIRABLE GRASS SPECIES, DISEASE AND INSECTS.
2. NO INDIVIDUAL LAWN AREAS SHALL HAVE BARE SPOTS OR UNACCEPTABLE COVER TOTALING MORE THAN TWO (2) PERCENT OF THE INDIVIDUAL AREAS, IN THOSE AREAS REQUESTED FOR INSPECTION.
3. UPON ACCEPTANCE, THE CONTRACTOR WILL ASSUME LAWN MAINTENANCE.

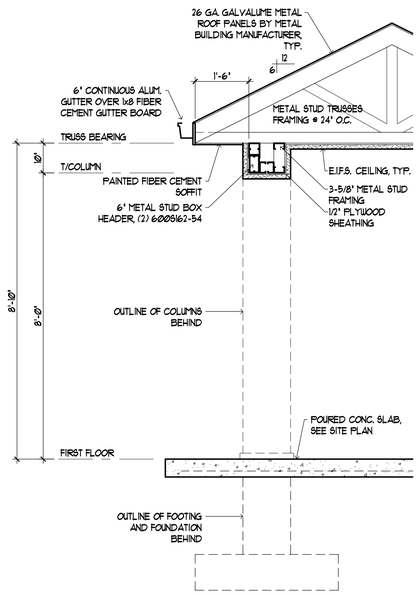
END OF SECTION 31 14 00

Item	Revision Description	Date	Drwn:	Chk:
1	REVISED PER OWNER REVIEW	02-28-25	LEM	LEM

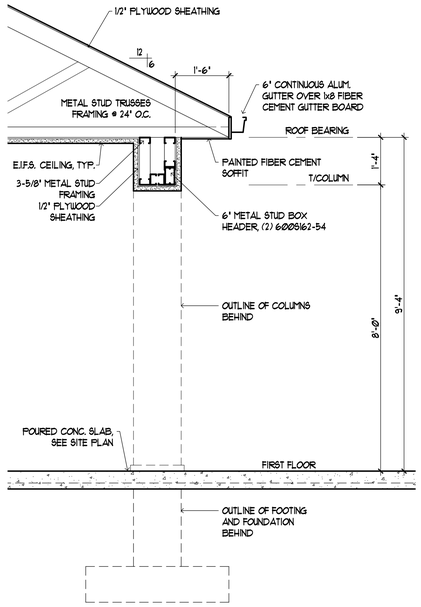
TOPSS: TALAWANDA OXFORD
PANTRY & SOCIAL SERVICES
SEC. 16, TOWN 5, RANGE 1, CONGRESS LANDS W. OF THE MIAMI
LOT 3285 OXFORD
BUTLER COUNTY, OHIO
5445 COLLEGE CORNER PIKE

LANDSCAPE SPECIFICATIONS

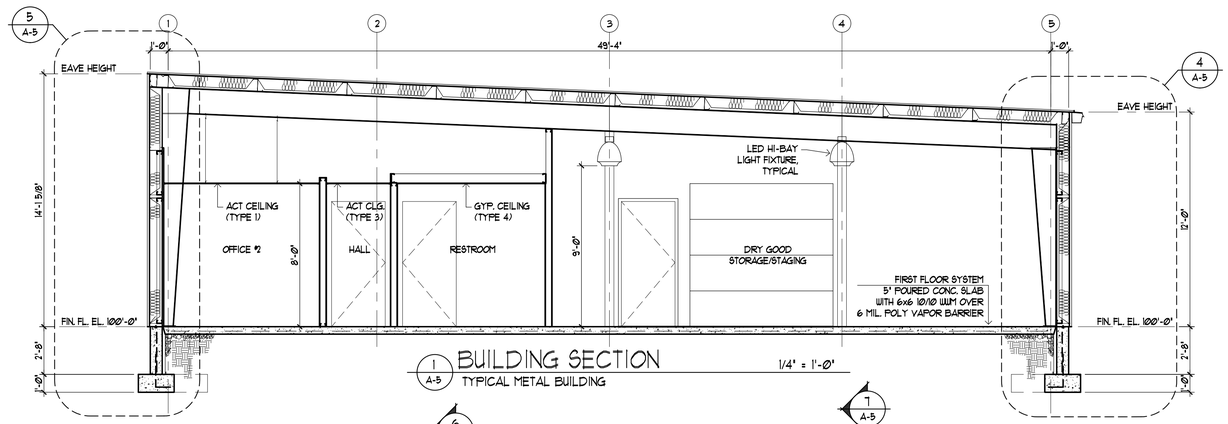
Drawing: 24-0042 LA
Drawn by: LEM
Checked By:
Issue Date: 02-14-25
Sheet: L2.1



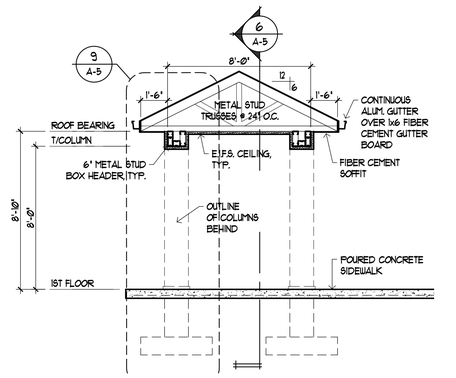
9 A-5 WALL SECTION 1/4" = 1'-0"
PICKUP/DELIVERIES COVERED ENTRY



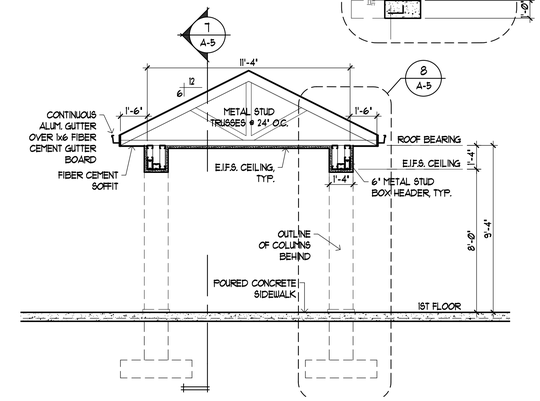
8 A-5 WALL SECTION 1/4" = 1'-0"
ENTRY/WAITING COVERED ENTRY



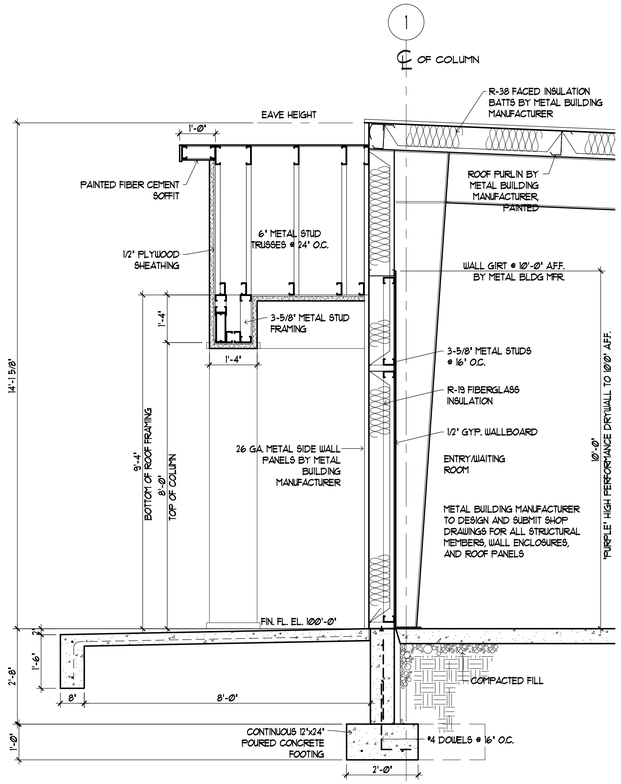
1 A-5 BUILDING SECTION 1/4" = 1'-0"
TYPICAL METAL BUILDING



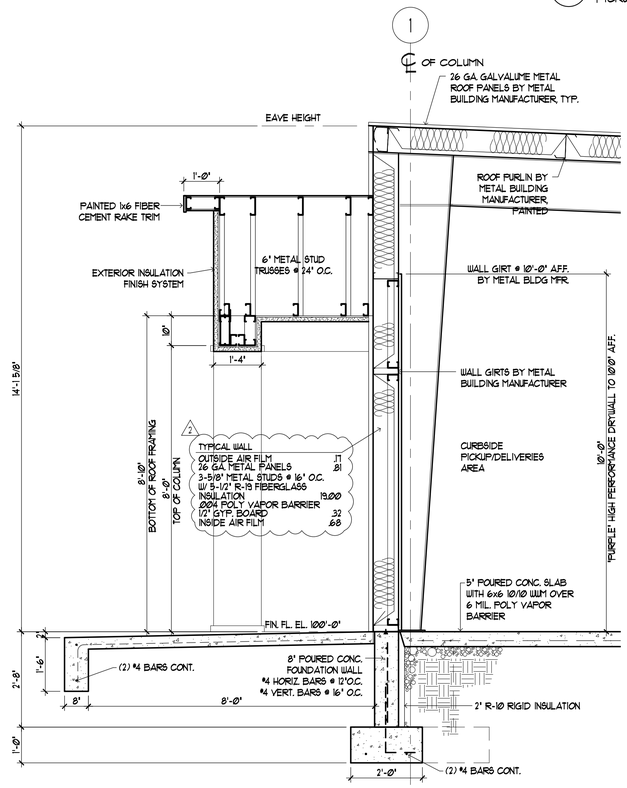
3 A-5 BUILDING SECTION 1/4" = 1'-0"
PICKUP/DELIVERIES COVERED ENTRY



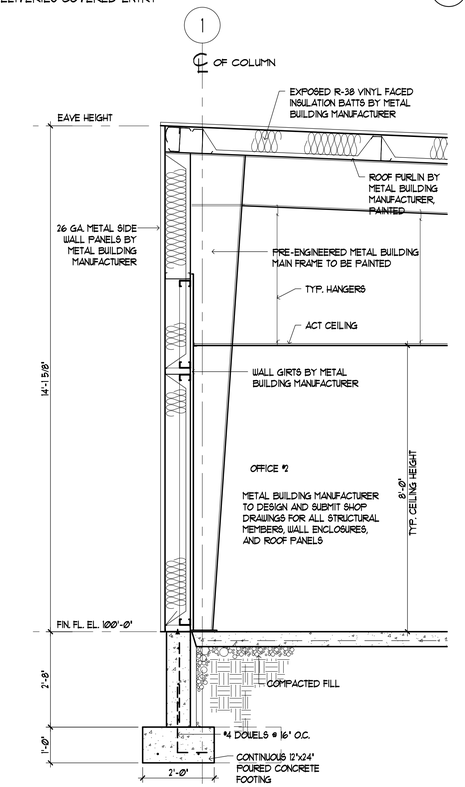
2 A-5 BUILDING SECTION 1/4" = 1'-0"
ENTRY/WAITING COVERED ENTRY



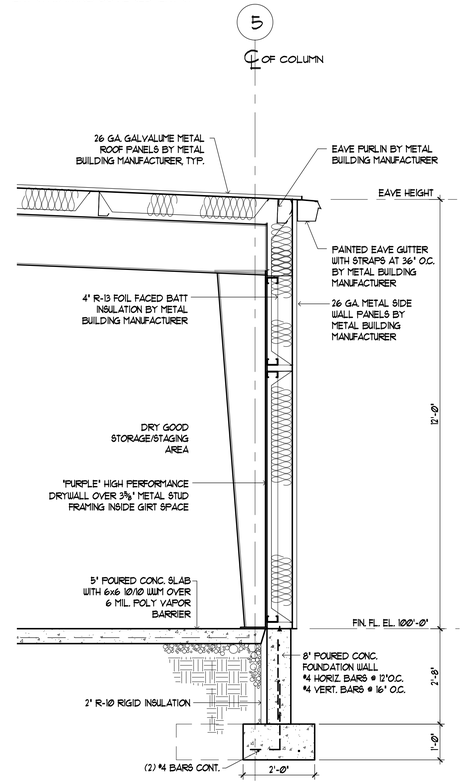
7 A-5 WALL SECTION 1/2" = 1'-0"
THROUGH ENTRY / WAITING ENTRANCE



6 A-5 WALL SECTION 1/2" = 1'-0"
THROUGH CURBSIDE PICKUP/DELIVERIES ENTRANCE



5 A-5 WALL SECTION 1/2" = 1'-0"
THROUGH TYPICAL FRONT WALL



4 A-5 WALL SECTION 1/2" = 1'-0"
THROUGH TYPICAL REAR WALL

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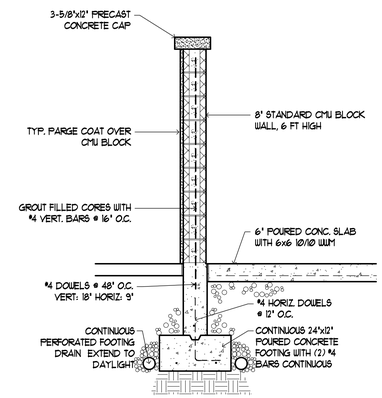
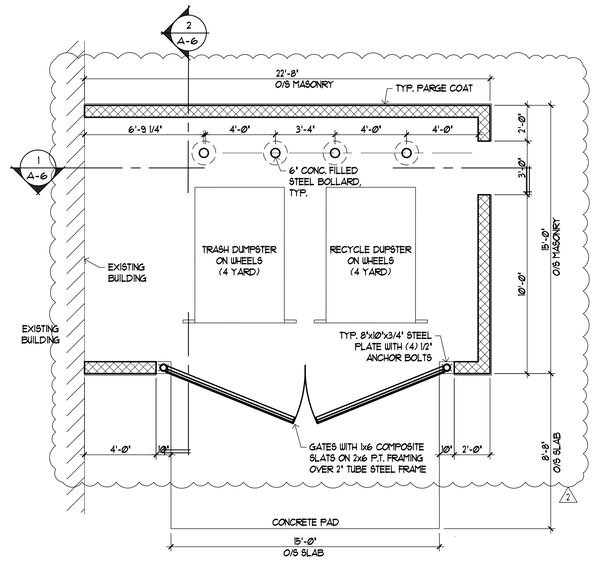
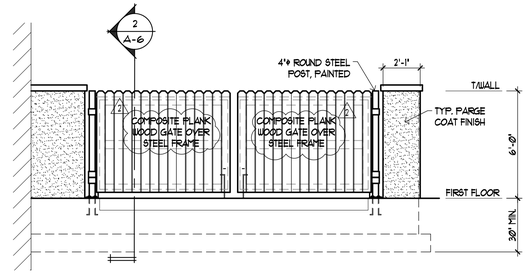


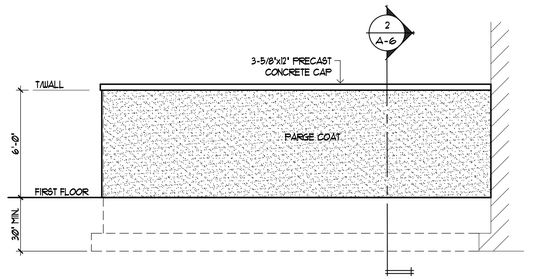
4 A-6 **WALL SECTION** 1/2" = 1'-0"
THROUGH TYPICAL ENCLOSURE WALL



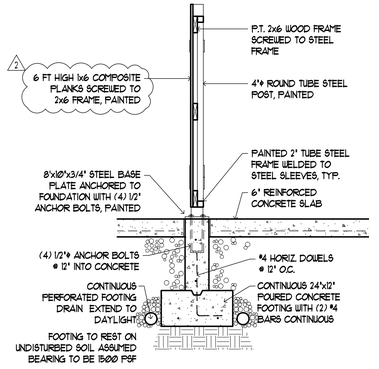
FLOOR PLAN 1/4" = 1'-0"
TYPICAL DUMPSTER ENCLOSURE (TYPE 1)



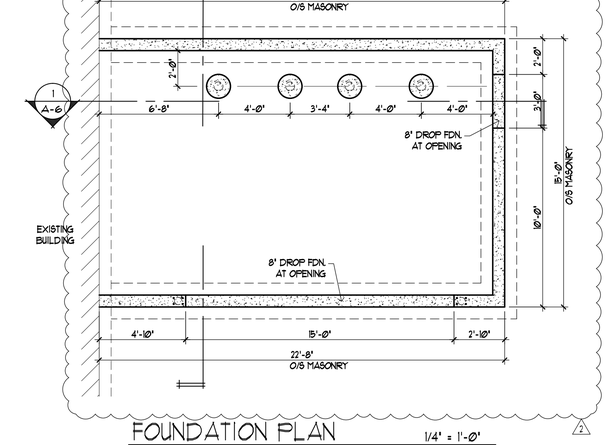
FRONT ELEVATION 1/4" = 1'-0"
TYPICAL DUMPSTER ENCLOSURE



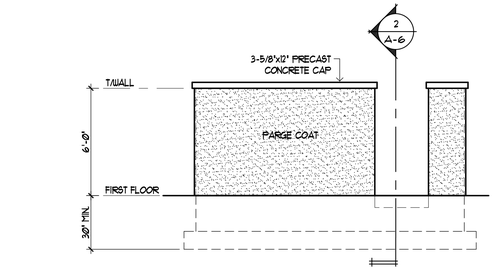
REAR ELEVATION 1/4" = 1'-0"
TYPICAL DUMPSTER ENCLOSURE



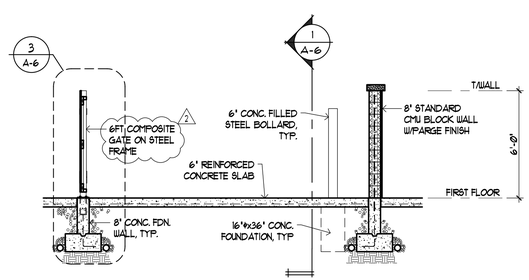
3 A-6 **WALL SECTION** 1/2" = 1'-0"
THROUGH TYPICAL WOOD GATE



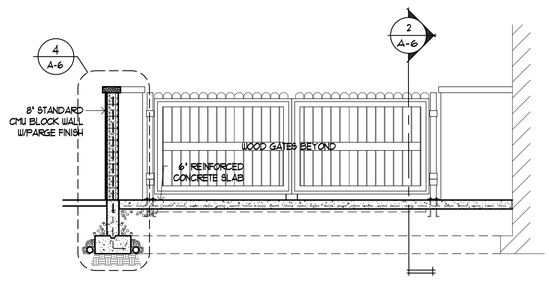
FOUNDATION PLAN 1/4" = 1'-0"
TYPICAL DUMPSTER ENCLOSURE (TYPE 1)



RIGHT SIDE ELEVATION 1/4" = 1'-0"
TYPICAL DUMPSTER ENCLOSURE



2 A-6 **BUILDING SECTION** 1/4" = 1'-0"
THROUGH TYPICAL DUMPSTER ENCLOSURE



1 A-6 **BUILDING SECTION** 1/4" = 1'-0"
THROUGH TYPICAL DUMPSTER ENCLOSURE

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TABLE 1704.3
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.		X	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC ASD, SECTION A3.4; AISC LRFD, SECTION A3.3	
2. INSPECTION OF HIGH STRENGTH BOLTING: A. BEARING-TYPE CONNECTIONS.		X	AISC LRFD SECTION M2.5	1704.3.3
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL: A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURERS' CERTIFIED MILL TEST REPORTS.(WHEN REQUESTED)		X	ASTM A 6 OR ASTM A 568 ASTM A 6 OR ASTM A 568	1708.4
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS: A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS. B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.		X	AISC, ASD, SECTION A3.6; AISC LRFD, SECTION A3.5	
5. INSPECTION OF WELDING: A. STRUCTURAL STEEL: 1. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS. 2. MULTI-PASS FILLET WELDS. 3. SINGLE-PASS FILLET WELDS. LARGER THAN 5/16" 4. SINGLE-PASS FILLET WELDS. SMALLER THAN 5/16" 5. FLOOR AND DECK WELDS. B. REINFORCING STEEL: 1. REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR 2. SHEAR REINFORCMENT. 3. OTHER REINFORCING STEEL.	X X X X X	 X X X	AWS D1.1 AWS D1.3 AWS D1.4	1704.3.1 1903.5.2
6. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS: A. MEMBER LOCATIONS. B. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.		X		1704.3.2

FOR SI: 1 inch = 25.4 mm
A. WHERE APPLICABLE, SEE ALSO SECTION 1707.1, SPECIAL INSPECTION FOR SEISMIC RESISTANCE.

TABLE 1704.4
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL, AND PLACEMENT.		X	ACI 318: 3.5, 7.1-7.7	1903.5, 1907.1, 1907.7, 1914.4
2. VERIFYING USE OF REQUIRED DESIGN MIX.		X	ACI 318: CH. 4, 5.2-5.4	1904, 1905.2-1905.4, 1914.2, 1914.3
3. SAMPLING FRESH CONCRETE AND PERFORMING SLUMP, AIR CONTENT AND DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT THE TIME OF MAKING SPECIMENS FOR FOR STRENGTH TESTS. 50 CUBIC YARD INCREMENTS PER ACI	X		ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1905.6, 1914.10
4. INSPECTION OF CONCRETE FOR PROPER APPLICATION TECHNIQUES.	X		ACI 318: 5.9,5.10	1905.9, 1905.10, 1914.6, 1914.7, 1914.8
5. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.		X	ACI 318: 5.11-5.13	1905.11, 1905.13, 1914.9

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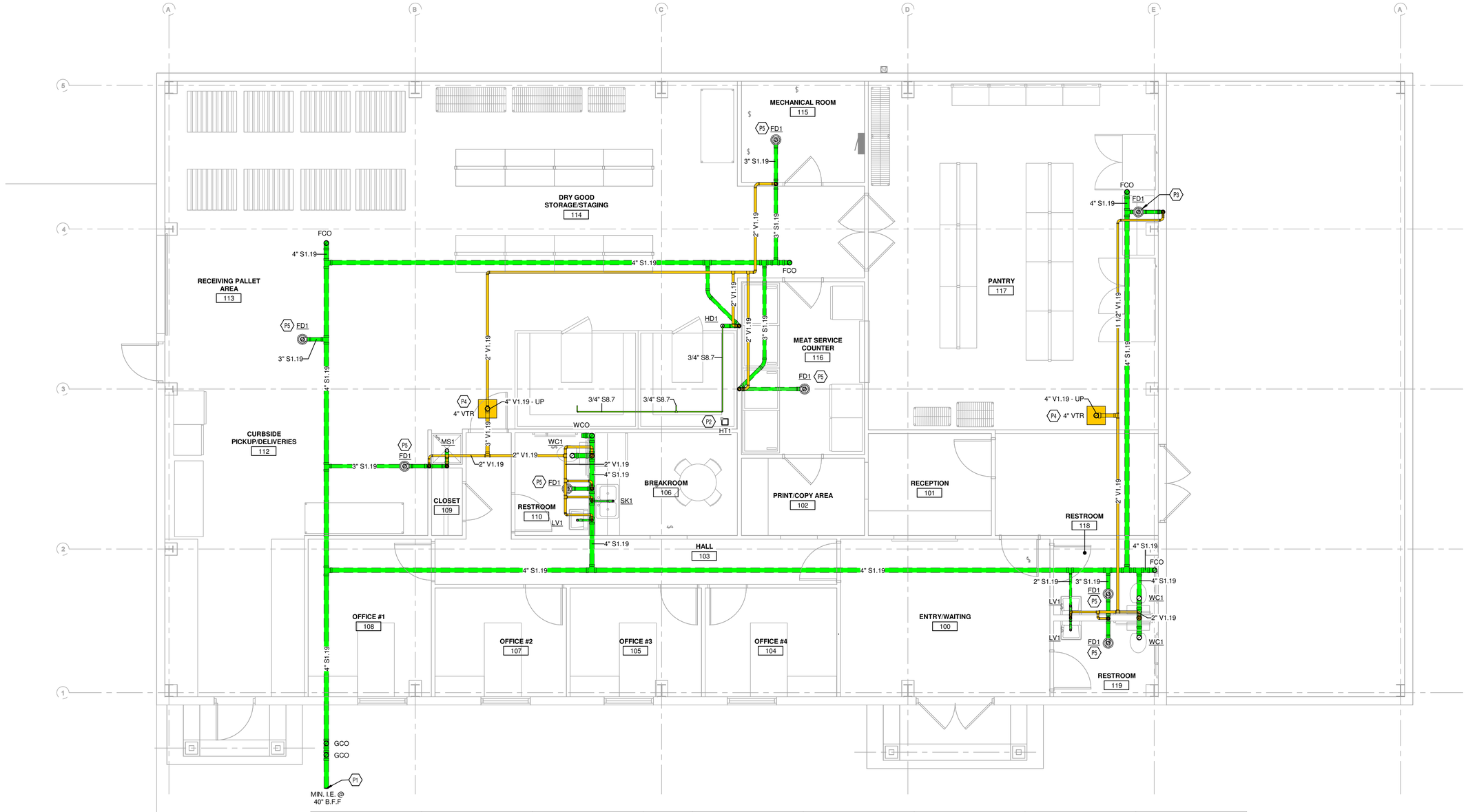
Pipe Type Legend			
Mark	Color	System Name	Pipe Material
S1.19		S1 - Sanitary	19 - PVC - Schedule 40 - ASTM D1785/D2665
S8.7		S8 - Condensate Drainage	7 - CPVC - DWV - ASTM F2618
V1.19		V1 - Vent	19 - PVC - Schedule 40 - ASTM D1785/D2665

KEYED NOTES

P1	REFER TO CIVIL PLANS FOR CONTINUATION.
P2	PROVIDE HEAT TRACE AS SCHEDULED FOR FREEZER PIPING. ALL FREEZER AND COOLER PIPING TO BE INSULATED PER SPECIFICATIONS. INDIRECT CONDENSATE WASTE TO HUB DRAIN VIA APPROVED AIR GAP.
P3	INDIRECT CASE DRAIN TO FLOOR DRAIN VIA APPROVED AIR GAP.
P4	PROVIDE VENT THROUGH ROOF. MAINTAIN A MINIMUM 10'-0" FROM ANY BUILDING INTAKES.
P5	PROVIDE TRAP SEAL FOR EMERGENCY FLOOR DRAIN PER SPECIFICATIONS. BASIS OF DESIGN TO BE SURESEAL SS3009V.



1 PLUMBING WASTE AND VENT PLAN
1/4" = 1'-0"

STATE OF OHIO
CHRISTOPHER A. MCHAFFIE
E-80769
REGISTERED PROFESSIONAL ENGINEER
4/25/2025

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N

2" REFERENCE LINE
KLH #: 26959

PLUMBING WASTE AND VENT PLAN

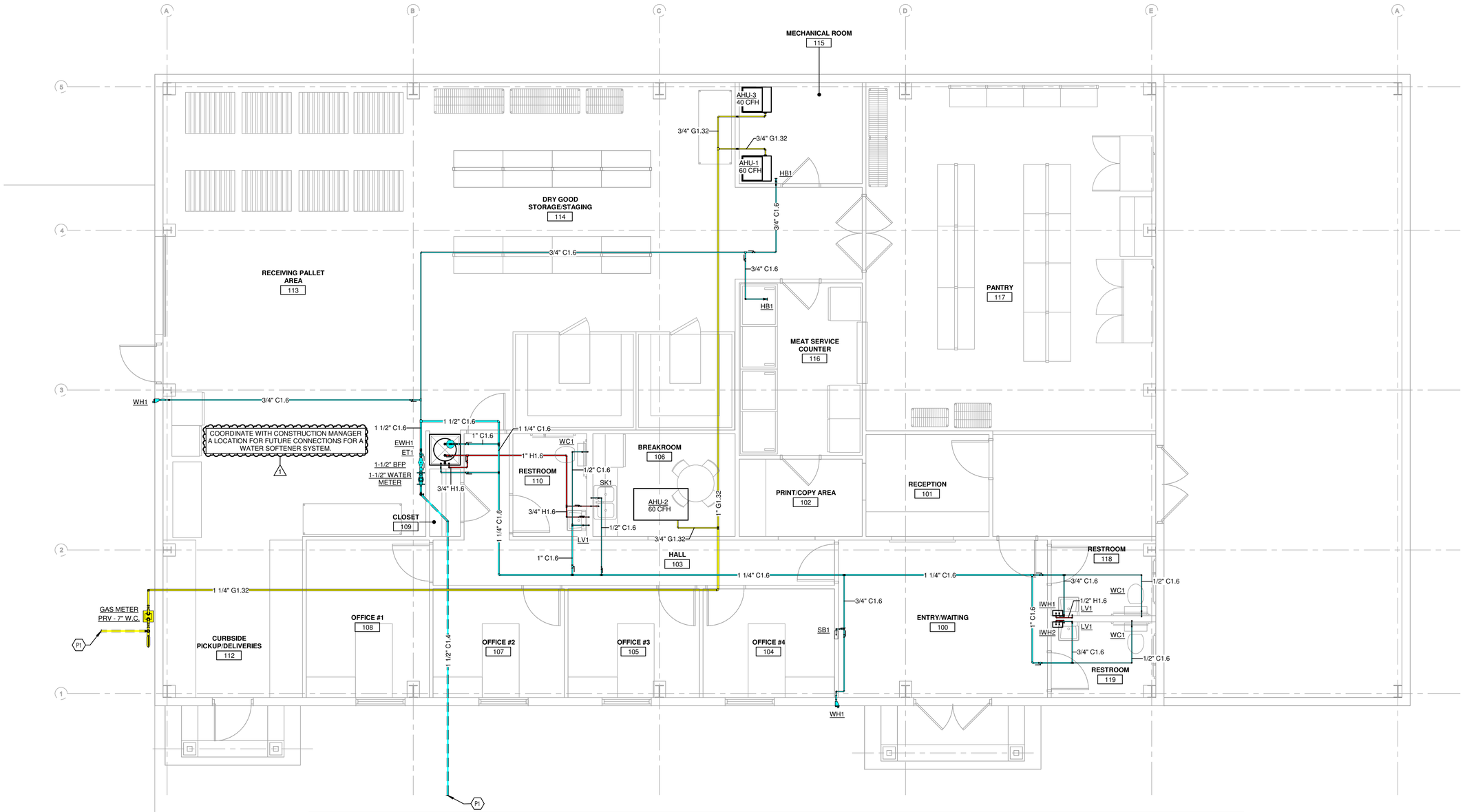
P-101

03/12/25

Pipe Type Legend			
Mark	Color	System Name	Pipe Material
C1.4		C1 - Domestic Cold Water	4 - Copper - Type K - ASTM B88
C1.6		C1 - Domestic Cold Water	6 - Copper - Type L - ASTM B88
G1.32		G1 - Natural Gas	32 - Black Steel - Schedule 40 - ASTM A53/A53M
H1.6		H1 - Domestic Hot Water	6 - Copper - Type L - ASTM B88

KEYED NOTES

P1	REFER TO CIVIL PLANS FOR CONTINUATION.



1 PLUMBING WATER & GAS PLAN
1/4" = 1'-0"

N

2" REFERENCE LINE
KLH #: 26959

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PLUMBING WATER & GAS PLAN

P-102

03/12/25

SECTION 22 05 00.00 - COMMON WORK RESULTS FOR PLUMBING

GENERAL

The General Provisions of the Contract including the General and Supplemental Conditions and General Requirements apply to the work in this section. Before submitting a bid, examine documents of all other trades, visit the site and get acquainted with all conditions that may in any way affect the execution of this contract.

Contractor shall obtain and pay for all permits, certificates of inspection and approvals required.

Submittal of a bid indicates that the contractor has examined the drawings, specifications, and had an opportunity to visit the site to be able to provide a comprehensive complete bid to include providing all materials, labor, tools, and equipment required to provide complete plumbing systems as outlined in Division-22.

Contractor shall be responsible for all the costs associated with work provided by the utility company, including tap fees, installation costs, materials, equipment, road cuts, and bores if applicable.

Clearly state all full load amps (FLA), voltages and model numbers on all submittals.

Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories. Provide wiring diagrams: For power, signal, and control wiring.

APPLICABLE STANDARDS

The installation of all plumbing work shall conform to all the following, but not limited, applicable local and municipal utility standards, rules and regulations, plumbing codes and statutes having jurisdiction.

All plumbing fixtures, equipment, accessories, and appurtenances shall be NSF/ANSI 61-372 compliant.

Ohio Building Code;
Ohio Plumbing Code;
American Society for Test Materials (ASTM);
National Sanitation Foundation (NSF);
American Standards Association (ASA);
Underwriters Laboratories (UL);
National Fire Protection Association (NFPA);
National Electric Code (NEC);

PLANS AND SPECIFICATIONS

Obtain the latest **TOPPS** design and construction standards document(s). Comply with all owner-specific requirements in addition to requirements set forth in these specifications and accompanying drawings. Should there be a conflict, the owner's standards shall take precedence, unless prevailing codes and regulations mandate otherwise.

The drawings that accompany these specifications are diagrammatic. Wherever possible make use of submittal data and verify all dimensions on site. Provide additional fittings as required by site conditions and codes at no additional cost to conform to the structure, avoid obstructions, provide required service clearances and preserve headroom. Do not scale from drawings, all measurements should be taken in the field.

EXISTING CONDITIONS

Where new plumbing systems are required to be connected to existing plumbing systems, provide all camera scoping and dye testing necessary to verify the exact location, size, invert elevation, pressure, pipe integrity, and system type to ensure a proper connection is executed. The contractor shall notify the engineer immediately if it is found a proper connection cannot be executed.

CUTTING, PATCHING AND DEMOLITION

The contractor shall be responsible for damages to the grounds, walks, road, building, piping systems, electrical systems, and their equipment and contents, caused by leaks in the piping systems being installed or having been installed by him. The contractor shall repair at his expense all damaged so caused. All repair work shall be done as directed by and in such manner as satisfactory to the architect.

Owner reserves the right to make emergency repairs as required to keep equipment in operation without voiding the contractor's guarantee bond nor relieving the contractor of his responsibilities during the bonding period.

Cut and drill all openings in roofs, walls, and floors required for the installation. Neatly patch all openings cut. Hold cutting and patching to a minimum by arranging with other contractors for all sleeves and openings before construction is started. When drilling/cutting concrete slabs, utilize ground penetrating radar (GPR) and/or X-ray scanning equipment to verify the location is free from obstructions, including but not limited to: structural rebar/strands/tendons, electrical conduit/wiring, and/or piping/ductwork.

EXCAVATION AND BACKFILL

Perform all excavation and backfilling required for this work. Contractor shall consult with utility company prior to beginning excavation. At a minimum, all piping shall be laid on a bed of sand, 6" deep, well tamped into place and properly graded to permit the pipe to have an even bearing throughout its entire length. Sand shall be installed around the piping in 6" lifts to a point 6" above the piping.

DELEGATED DESIGN

For equipment supports, this contractor shall retain a qualified professional engineer to provide support calculations of static and dynamic loading due to operating equipment weight. The signed and sealed calculations and details shall be submitted by the retained professional engineer.

WARRANTY

This contractor shall warrant that all work under this section shall be free of defective work, materials and parts for a period of one year after acceptance of the work and shall repair, revise, and replace, at no cost to the owner, any such defects occurring within the warranty period.

Use of Electronic Drawings from the Owner's Design Team

If expressly permitted by the Owner and the terms of the Contract, editable electronic drawings may be made available for the creation of shop and as-built drawings upon request. Drawings will be made available at the discretion of the Engineer. "Request Drawings" form can be accessed, filled out and submitted at http://www.klhengrs.com (right hand side of page - Contractor Resources). Direct access to this form can be found here: http://files.klhengrs.com/requestdrawings.html

22 05 03.00 - SUBMITTALS FOR PLUMBING

Provide submittals in accordance with the Contract Documents. In addition to Division 01, the Contractor is advised to review and comply with the requirements articulated within each Division and within each section of that Division.

Some Divisions may include a division-specific "Submittal Requirements for …." section. Where this section exists, it articulates additional requirements for submittals that apply to the work of that Division.

The following requirements help to identify, track and keep the project organized for all parties involved. They are necessary to ensure a timely turnaround and an appropriate technical review. Submittals that do not conform to the administrative requirements are rejected and returned, without technical review.

Supply submittals for each section: Submittals shall be supplied on a section-by-section and type-by-type basis. For example, independent product data submittals shall be furnished for each section that requires product data submittals. Independent shop drawing submittals shall be furnished for each section that requires shop drawings.

Separate PDF file packages shall be supplied for each section, for each submittal type. Each PDF shall represent a single standalone submittal.

Include a transmittal: Transmittals shall enumerate each submittal for each section of each type and iteration.

Include cover sheet / title page: The cover sheet shall include the information identified in the contract documents. It shall be included as the first page of each electronic and/or hardcopy document-based submittal. An editable and printable PDF form created with editable fields and specification compliant appearance is available from KLH upon request. It is also downloadable from the KLH website at www.klhengrs.com.

Include an index: The index shall enumerate the contents of the submittal.

Include checklists: Where checklists are included with the specifications, complete and include them within the appropriate submittal. Supply complete submittals:

Complete submittals of each type are required. Partial submittals will be rejected. Where a section requires a product data submittal, all product data for that section shall be supplied together, at one time, as one complete submittal. When resubmittal is required (e.g. Revise and Resubmit) the revised submittal shall be more complete, more accurate and more contract-compliant than its rejected predecessor. The submittal number (for each section and type) shall increment for each subsequent submittal (00 – Original submission, 01 – First Resubmission, 02 – Second Resubmission, etc…).

Resubmittals shall include a copy of the reviewers comments supplied with the prior submittal rejection and shall be amended with a description of the specific action taken to comply with the reviewer's comments. The absence of this on resubmittal is cause for rejection.

Name electronic files to match the submittal ID and cover sheet: The electronic file name of submittals shall match the submittal ID included on the submittals cover page. For example: The original/first product data submittal for Section 220523 would be labeled as "220523.00-PD-00"; the first resubmittal of same shall be labeled "220523.00-PD-01". The original/first shop drawings submittal file for the same section would be labeled "220523.00-SD-00"; the first resubmittal of same shall be labeled "220523.00-SD-01".

If expressly permitted by the Owner and the terms of the Contract, editable electronic drawings may be made available for the creation of shop and as-built drawings upon request. Drawings will be made available at the discretion of the Engineer.

"Request Drawings" form can be accessed, filled out and submitted at http://www.klhengrs.com (right hand side of page - Contractor Resources). Direct access to this form can be found here:
http://files.klhengrs.com/requestdrawings.html

22 05 17.00 – SLEEVES AND SLEEVE SEALS FOR PLUMBING PIPING

SLEEVES

Steel Pipe: ASTM A 53, Type E, Grade B, Schedule 40, galvanized, plain ends.

EXECUTION

Install steel pipe sleeves two sizes larger than pipes passing through floors, rated walls, building foundation walls or masonry construction. Sleeves are not required for core drilled holes.

For sleeves that will have sleeve-seal systems installed, select sleeves of size large enough to provide 1-inch annular clear space between piping and concrete slabs and walls.

Install sleeves in concrete floors, concrete roof slabs, and concrete walls as new slabs and walls are constructed.
Permanent sleeves are not required for holes in slabs formed by molded-PE or -PP sleeves.
Cut sleeves to length for mounting flush with both surfaces.
Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 2 inches above finished floor level.
Using grout, seal the space outside of sleeves in slabs and walls without sleeve-seal system.

Install sleeves for pipes passing through interior partitions.
Cut sleeves to length for mounting flush with both surfaces.
Install sleeves that are large enough to provide 1/4-inch annular clear space between sleeve and pipe or pipe insulation.
Seal annular space between sleeve and piping or piping insulation; use joint sealants appropriate for size, depth, and location of joint.

Seal sleeves and piping with material rating equivalent to the wall rating. Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Seal pipe penetrations with firestop materials where required.

MECHANICAL SLEEVE-SEAL SYSTEMS

Description: Modular sealing-element unit, designed for field assembly, for filling annular space between piping and sleeve.
Sealing Elements: EPDM-rubber interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.

22 05 23.00 - GENERAL DUTY VALVES

Submittal Requirements
Product Data: For each type of product indicated.
GENERAL
Provide stops or isolation valves on domestic water supplies to isolate hot and cold water to each fixture, including all equipment and equipment provided by others.
Access shall be provided to all valves. Provide fire-rated access panel(s) to maintain full access to concealed valves.
Ball valves - 2 inch and smaller: Lead-Free, 150 psi @ 250°F minimum pressure rating, cast bronze body, blowout-proof stem.
Butterfly Valves - 3" and up: Ductile Iron Butterfly Valve, 200 WOG, Lug Body, Lever Operator.
Approved Manufacturers: Milwaukee Valve, NIBCO, and Watts Water Technologies Co.
Valves to conform to: MSS-SP-110 Type I/ MSS-SP-67 Type I, NSF/ANSI -61/372.
Check valves - to be same size as system piping it accompanies. Lead-free, bronze body, 250 WOG, non-shock, spring check valve. Conforms to the following standard(s): MSS-SP-80 I, NSF/ANSI -61/372

22 05 29.00 – HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

GENERAL
Provide hangers, supports, clamps, attachments, and structural steel members where required to support piping and equipment from building structure.
Support of piping from the decking or equipment is prohibited.
Arrange for grouping of parallel runs of horizontal piping supported together on field-fabricated, heavy-duty trapeze hangers where possible. Trapeze hangers shall conform to: MSS SP-69, Type 59. Horizontal-Piping Clamps: Provide Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3) for suspension of pipes requiring clamp flexibility and up to 4 inches of insulation.
Vertical-Piping Clamps: Provide extension pipe or Riser Clamps (MSS Type 8) for support of pipe risers.
Hangers shall be sized to allow insulation to pass through unobstructed.
Hanger and support types:
Hangers: Provide adjustable, Steel Clevis Hangers (MSS Type 1) for suspension of noninsulated or insulated, stationary pipes.
Horizontal-Piping Clamps: Provide Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3) for suspension of pipes requiring clamp flexibility and up to 4 inches of insulation.
Vertical-Piping Clamps: Provide extension pipe or Riser Clamps (MSS Type 8) for support of pipe risers.
Hangers and supports shall be placed at all changes in direction, valves and equipment.
The maximum horizontal spacing of cast-iron pipe hangers can be 10' where 10-foot lengths of pipe are installed.
Piping shall also be supported at each change in direction, valves and equipment.
Clevis-type hangers shall and supports shall conform to: MSS SP-58, Type 1-58.

22 05 33.00 –HEAT TRACING FOR PLUMBING PIPING

Submittal Requirements
Product Data: For each type of product indicate rated heating capacities, length of cables, and controllers. Clearly state model numbers on all submittals.
Delegated-Design Submittal: For installed products indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation. Delegated design submittals include the following:
Heat Trace Circuit Layout Drawings, including: Location/identification of area to be traced, heater circuit number, electrical load, heater catalog numbers, heater termination points, start-up temperature, location of all components, material list and quantities of all components, heating cable layout.
GENERAL
SELF-REGULATING, PARALLEL-RESISTANCE HEATING CABLES FOR PIPE FREEZE PROTECTION AND GREASE WASTE FLOW MAINTENANCE
Basis-of-Design Product: Subject to compliance with requirements, provide RAYCHEM, a brand of nVent; XL-Trace Pipe Freeze/Flow Maintenance or comparable product by one of the following:
Chromalox inc.
Thermon Americas Inc.
Source Limitations: Obtain heat-tracing components and controllers from single manufacturer. To ensure system integrity and meet warranty requirements, only components and controllers supplied by cable manufacturer are to be used.
Heating cable and connection kit shall be included in a UL Listed, CSA Certified, and FM Approved system.
SYSTEM DESCRIPTION
Complete pipe freeze protection system for insulated pipes exposed to the risk of freezing flow maintenance . System consists of a self-regulating heating cable, connection kits, accessories, and energy-efficient control, monitoring, and Building Management System (BMS) communication capabilities. The heating cable shall have an approved suitable jacket for above ground water piping applications, and an approved suitable jacket for below ground grease waste piping applications.
Pipe freeze protection of above ground water piping.
Delegated Design: Engage manufacturer to design complete and functional heat-tracing system as required by Project documents.
Maximum Operating and Exposure Temperature: 150 deg F.
INSTALLATION
All heat-tracing components including power connections, splices, tees, crosses or end seal, must be installed above grade and protected from abuse or damage. In accordance with NEC and CEC, electrical connections are not permitted to be installed below grade.
In the field, all heating cables shall be meggered with a minimum of 2,500 V dc for self-regulating cable when the cable is received at the Project Site prior to installation, after installation but prior installation of insulation, after insulation is installed, and at final commissioning prior to being energized.
Installation to conform to all NEC and IEEE applicable standards.
PROTECTION
Protect installed heating cables, including non-heating leads, from damage and moisture ingress during construction. Remove and replace damaged heat-tracing cables as necessary to ensure a complete and functioning system.

22 05 53.00 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

PIPING
Provide self-adhesive pipe labels with white background and black lettering, contact type with permanent adhesive backing. Include identification of piping service using same designations or abbreviations as used on the drawings and an arrow indicating flow direction.
EQUIPMENT
Provide self-adhesive plastic equipment labels with white background and black lettering, contact type with permanent adhesive backing, 160 degree F temperature. Include equipment's drawing designation and specification section number where equipment is specified.

22 07 19.00 – PLUMBING SYSTEM INSULATION

GENERAL
Insulation shall be listed and labeled per ASTM E 84 for plenum installations employing slip on techniques.
Provide insulation materials, accessories, and finishes with smooth, straight, and even surfaces; free of voids throughout the length of piping including fittings, valves, and specialties.
Surface Preparation: Clean and dry surfaces to receive insulation. Remove materials that will adversely affect insulation application.
PIPING SYSTEMS REQUIRING INSULATION
Insulate domestic cold water piping, associated fittings and valves with flexible elastomeric 1/2" wall thickness insulation.
Insulate domestic hot water piping, associated fittings and valves with 1" thick flexible elastomeric, 1-1/2" thick fiberglass insulation or per local energy code, whichever greater.
Insulate plumbing piping where heat trace is installed, coordinate insulation thickness and material type with heat trace manufacturer providing the system.
Insulate waste piping above ceilings that receive condensate with 1/2" wall thickness insulation.
Insulate exposed sanitary drains, domestic water, domestic hot water, and stops for plumbing fixtures for people with disabilities.
FLEXIBLE ELASTOMERIC INSULATION
Closed-cell, sponge- or expanded-rubber materials. Comply with ASTM C 534, Type I for tubular materials and Type II for sheet materials.
Adhesives, Sealers, and Protective Finishes: As recommended by insulation manufacturer for applications indicated.
Manufacturers: Subject to compliance with requirements, available products that may be incorporated into the work include, and are limited to, the following:
Aeroflex USA, Inc.; Aerocel., Armacell LLC; AP Armaflex.,K-Flex USA;
FIBERGLASS INSULATION
Fiberglass piping insulation: ASTM C 547, Class 1
Encase pipe fittings insulation with one-piece pre-molded PVC fitting covers.
Vapor Barrier Material: Paper-backed aluminum foil, except as otherwise indicated, strength and permeability rating equivalent to adjoining pipe insulation jacketing.
Staples, Bands, Wires, and Cement: As recommended by insulation manufacturer for applications indicated.
Adhesives, Sealers, and Protective Finishes: As recommended by insulation manufacturer for applications indicated.
Manufacturers: Subject to compliance with requirements, available products that may be incorporated into the work include, and are limited to, the following:
Armstrong World Industries, Inc., Owens-Corning Fiberglass Corp., Johns Manville.
ADHESIVES
Materials shall be compatible with insulation materials, jackets, and substrates and for bonding insulation to itself and to surfaces to be insulated, unless otherwise indicated.
Insulation for handicap accessible fixtures
All handicap lavatory p-trap and angle stop assemblies shall be insulated with trap wrap protective kit manufactured by Proflo model PF202WH or equal.
Abrasion resistant, anti-microbial vinyl exterior cover shall be smooth. For traps, the insulation shall have a cleanout nut cap to allow service to the trap without disassembly.
For stops, the insulation shall have a lock lid that prevents tampering but allows access without removal of the insulation. Fasteners shall remain substantially out of sight.
Manufacturers: subject to compliance with requirements: Proflo, Truebro, Plumberex

22 11 16.00 – DOMESTIC WATER PIPING

Submittal Requirements
Product Data: For each type of product indicated.
GENERAL
Install piping concealed from view unless noted otherwise, free of sags and bends. Do not enclose, cover, or put piping into operation until it has been inspected and approved by authorities having jurisdiction. Clean and disinfect potable domestic water piping using approved procedures by authorities having jurisdiction or AWWA C651, whichever is more rigorous.
Install at right angles; diagonal runs are prohibited unless otherwise shown. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
Coordinate all piping with all other trades.
Provide water pressure regulators where necessary to limit the incoming water pressure to 80 psi inside the building.
DOMESTIC WATER PIPING ABOVE GROUND:
Hard copper tube, ASTM B 88, Type L; wrought-copper, solder-joint fittings; and soldered joints.
Solder Filler Metals: ASTM B 32, lead-free alloys.
Flux: ASTM B 813, water flushable.
PEX and CPVC is approved for interior water piping. Type "L"; copper pressure-seal joint; and pressure-seal joint systems.
CATHODIC PROTECTION
Provide dielectric insulation at points where copper or brass pipe comes in contact with ferrous piping, reinforcing steel or other dissimilar metal in structure.

22 11 19.00 – DOMESTIC WATER PIPING SPECIALTIES

Submittal Requirements
Product Data: For each type of product indicated.
Manufacturers: Subject to compliance with requirements, available products that may be incorporated into the work include, and are limited to, the following:
Conbraco Industries, Inc., Watts Water Technologies Co., Zurn Industries, LLC., Thermomegatech, Acorn Engineering Co., and Caleffi, N. America., MIFAB, Inc., Precision Plumbing Products, Inc., Sioux Chief Manufacturing Company, Inc., Jay R. Smith Mfg. Co., Provent Systems, Rector Seal.
REDUCED PRESSURE BACKFLOW PREVENTERS
Backflow preventer (2" and smaller) - Provide a reduced pressure backflow preventer on water service main where the water service enters the building. Reduced pressure backflow preventer shall be sized equal to the size of the water service and conform to ASSE 1013. Pipe backflow preventer discharge to approved place of disposal.
DUAL CHECK VALVE BACKFLOW PREVENTER
Provide a dual check valve backflow preventer that complies with ASSE 1022 at connection of domestic water supply to any permanently connected potable water dispensing equipment such as ice makers, coffee machines, and beverage dispensers or where indicated in the contract documents.
Beverage dispensing equipment backflow preventer
Provide a continuous pressure backflow preventer with stainless steel body, threaded connections and complies with ASSE 1022.
VACUUM BREAKERS
Vacuum breakers shall be equal to Watts model LF288A for piping connections or Watts LF8 series for hose connections. Vacuum breakers shall comply with ASSE 1001 for piped connections, ASSE 1011 for hose connections, bronze body and threaded connections with rough bronze finish.
PRESSURE REDUCING VALVES
Provide pressure reducing valve to regulate incoming domestic water pressure in excessive of 80 psig. Pressure reducing valve shall be equal to Watts model LF223S, comply with ASSE 1003, initial working pressure of 300 psig, integral strainer, lead-free brass body with threaded connections.
STRAINERS
Provide lead-free wye-pattern strainer rated for 125 psig minimum, bronze body, threaded connections, stainless steel screen with round perforations of 0.020 inch and pipe plug drain. Provide strainers on supply side of each pressure reducing valve, solenoid valve and pump.
HOSE BIBBS
As indicated on plan, install all hose bibs 24"-30" above finished floor to facilitate filling of mop bucket without a hose. Furnish to owner with receipt one valve key for each key operated hose bob installed.
WALL HYDRANTS
Provide nonfreeze wall hydrants equal to Woodford model B-67 with chrome finish on brass casting with box and hinged door. Conceal within interior partitions. Furnish to owner with receipt one valve key for each key operated wall hydrant installed.
Mechanical trap seal
The plumbing contractor shall provide mechanical trap seals for all floor drains as approved by the local authority having jurisdiction. Provide an elastomeric, mechanical trap seal device which utilizes a normally closed seal to prevent evaporation of the trap seal and sewer gases from backing up to habitable areas.
WATER TAB METERS
Displacement-Type Water Meters:
Plumbing contractor to coordinate with owner for exact model and manufacturer.
Description: Displacement-Type Water Meter complying with AWWA C700.
WATER HAMMER ARRESTERS
Provide water-hammer arresters in water piping according to PDI-WH 201.
Standard: ASSE 1010 or PDI-WH 201.
Type: Metal bellows or copper tube with piston.
Size: ASSE 1010, sizes AA and A through F, or PDI-WH 201, sizes a through F.

22 13 16.00 - SANITARY, WASTE AND VENT PIPING SYSTEM

Submittal Requirements
Product Data: For each type of product indicated.
GENERAL
Provide a complete soil, waste and vent system in the building and on the site as indicated on the drawings and as specified herein.
Above ground soil, waste and vent piping within buildings including soil stacks, vent stacks, horizontal branches, traps, and connections to fixtures and drains.
Underground building drain piping including mains, branches, traps, connections to fixtures and drains, and connections to stacks, terminating at connection to existing sanitary sewer.
INTERIOR PIPING ABOVE GRADE
Solid wall schedule 40 PVC pipe and fittings 1-1/2" and larger shall conform to ASTM D 2665 / ASTM D 1785 DWV. Fittings shall conform to ASTM D 2665, made to ASTM D, DWV patterns and fit schedule 40 pipe.
Contractor shall maintain integrity of fire ratings. Piping shall not be run in plenum spaces and contractor shall provide intumescent collars when penetrating a rated wall, floor, or other assembly
Piping alignment shall be as indicated on the drawings using approved wye branches or eight bands for direction changes and shall be surely supported or secured to maintain such alignment.
Soil, waste and vent piping smaller than 1-1/2" shall be Type "M" copper and conform to ASTM B-306.
BELOW GRADE PIPING
Solid wall schedule 40 PVC pipe and fittings 2" and larger shall conform to ASTM D 2665 / ASTM D 1785 DWV. Fittings shall conform to ASTM D 2665, made to ASTM D, DWV patterns and fit schedule 40 pipe.
Piping alignment shall be as indicated on the drawings using approved wye branches or eight bands for direction changes and shall be surely set and buried to maintain such alignment.
Soil, waste and vent piping smaller 1-1/2" and smaller below grade shall not be permitted
Slope piping according to local codes.
Protection shall be given to all footings and other structural elements during underground work adjacent to such items. Refer to architectural and/or structural drawings for locations.
Vent all fixtures, connect branch vents to main vent risers at least six inches above flood rim of fixtures. Pitch vent lines back to soil or waste pipe, free of drops and sags. Cleanouts shall be full size of pipe up to 4", and 4" for larger sizes. For underground and concealed lines, provide cleanouts in accessible positions at each right angle turn and at intervals not to exceed fifty feet. In floors, install flush with finish floor with extension pipe from cleanout wye.

22 13 19.00 - SANITARY WASTE PIPING SPECIALTIES

Submittal Requirements
Product Data: For each type of product indicated.
CLEANOUTS
Floor cleanout equal to Zurn Z-1400 adjustable floor cleanout.
Wall cleanout equal to Zurn Z-1443 with smooth nickel bronze square wall access panel and frame.
Grade cleanout equal to Zurn Z-1400 adjustable cleanout.
Provide a sanitary tee with threaded cap cleanout plug for changes-in-direction in aboveground horizontal waste piping.
Manufacturers: Subject to compliance with requirements, available products that may be incorporated into the work include, and are limited to, the following:
Jay R Smith MFG. Co., Watts Drainage Products Inc., Zurn Plumbing Products Group.
FLOOR DRAINS
Provide floor drains in compliance with ASME A112.6.3.
Provide floor drains with trap-seal primer fitting. All floor drains located in rooms with tile floors shall be provided with manufacturer's standard square grate, unless noted otherwise.
Refer to plumbing drain schedule for project specific floor drain manufacturers and models.
Manufacturers: Subject to compliance with requirements, available products that may be incorporated into the work include, and are limited to, the following:
Jay R Smith MFG. Co., Watts Drainage Products Inc., Zurn Plumbing Products Group.

22 16 13.00 - NATURAL GAS PIPING SYSTEMS

Submittal Requirements
Product Data: For each type of product indicated.
GENERAL
Plumbing contractor shall be responsible for installing gas piping run-outs to all gas-fired equipment, including equipment supplied by the HVAC and electric contractors.
Piping shall be installed full-size (as indicated on the drawings) to each units' gas inlet connection, burner, regulator, etc. Plumbing subcontractor shall provide gas cock and make final connections. Connections to each gas-fired equipment item shall include a drip leg and shutoff gas cock. Comply with equipment manufacturer's instruction. For connections to gas-fired rooftop equipment, plumbing contractor shall be responsible for the roof penetration and shall install the gas piping through the roof in a location that has been coordinated with the HVAC contractor. Contractor shall be responsible for all the costs associated with work provided by the utility company, including tap fees, installation costs, materials, equipment, road cuts, and bores if applicable.
BUILDING DISTRIBUTION PIPING:
All piping from meter/regulator to gas fired equipment connections shall be black steel.
Steel Pipe: ASTM A 53/A 53M, black steel, Schedule 40, Type E or S, Grade B.
Pipe size 2" and smaller: Malleable-Iron Threaded Fittings
Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
Press-Connect fittings: Carbon steel, cold-pressed, ANSI LC4/CSA 6.32
Field prepare and paint exterior natural gas piping, fittings, etc… with alkyd anticorrosive metal primer and topcoat with exterior alkyd enamel flat. Color to match building exterior and approved by the architect
GENERAL DUTY VALVES:
Metallic valves 2 inches and smaller shall comply with ASME B16.33, cold working pressure of 125 psig.
Provide one-piece ball valves with bronze body, chrome-plated brass ball, blowout proof stem and seat, and bronze trim complying with MSS SP-110.
Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, and limited to, the following:
Milwaukee valve, NIBCO, and Watts Water Technologies co.
PRESSURE REGULATORS:
Provide pressure regulators to conform with ANSI Z21.80, cast iron or die-cast aluminum body, interchangeable zinc-plated steel springs and diaphragm plate, single port, self-contained regulator with orifice no larger than required at maximum pressure inlet and no pressure sensing piping external to the regulator.
Pressure regulator shall maintain discharge pressure setting downstream, and not exceed 150 percent of design discharge pressure at shutoff.
Overpressure Protection Device: Factory mounted on pressure regulator.
Regulator shall include vent limiting device, instead of vent connection and piping, if approved by authorities having jurisdiction.
NATURAL GAS METERS:
Service meters shall comply with the requirements of the utility supplying gas to the facility.

22 30 01.00 - POINT OF USE THERMOSTATIC MIXING VALVES

Submittal Requirements
Product Data: For each type of product indicated.
GENERAL
Thermostatic mixing valves shall be provided for all public hand washing sinks and lavatories and shall be ASSE 1070 listed, lead free, sweat connections, 125 psi operating pressure and have integral checks. Mount under sink or lavatory. Set outlet temperature of thermostatic mixing valve to 105 degrees F.
Point-of use thermostatic mixing valves shall be equal to Powers LFG480. Route tempered water to hot water side of sink and lavatories.
Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the work include, and are limited to, the following:
Symmons, Acorn Engineering, Powers, Bradley

22 33 00.00 - COMMERCIAL ELECTRIC, DOMESTIC WATER HEATERS

Submittal Requirements
Product Data: For each type of product indicated.
TANK TYPE
Provide commercial electric tank type water heater as scheduled. Comply with UL 1453 Standard.
Provide corrosion resistant metal drain pan with raised edges at the base of the water heater and include drain outlet.
Provide field fabricated piping heat trap arrangement according to ASHRAE/IESNA 90.1.
Provide combination temperature and pressure relief valve, ASME rated and stamped with relieving capacity at least as great as heat input and pressure setting less than water heater's rated operating pressure.
Provide water heater stands or mounting brackets with manufacturer's factory fabricated steel capable of supporting water heater.
Provide steel pressure-rated thermal expansion tank constructed with welded joints and factory-installed butyl rubber diaphragm, pre-charged to minimum system operating pressure at tank.
Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the work include, and are limited to, the following:
Bock Water Heaters, Bradford White Corp., Lochinvar Corp., State Industries.
INSTANTANEOUS (POINT-OF-USE)
Provide commercial electric instantaneous point- of-use water heater as scheduled. Comply with UL 499 Standard.
Housing shall vandal resistant, with high temperature and high impact resistance.
Provide with integral mechanical pressure differential type flow switch to operate heating element.
Provide with safety high-limit switch with manual reset.
Provide with microprocessor control to adjust heater power for variations in flow rates, inlet water temperature and pressure to maintain selected water temperature.
Water connection shall be designed for standard 3/8" O.D. flexible braided stainless steel hose type connections.
Minimum operating flow rate shall be equal to or greater than the faucet design flowrate including installed aerator.
Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the work include, and are limited to, the following:
Chronomite Laboratories, Inc., Stiebel Eltron, Inc., Eemax, Inc.

22 40 00.00 - PLUMBING FIXTURES

Submittal Requirements
Product Data: For each type of product indicated.
GENERAL
Refer to plumbing fixture schedule and install per the manufacturer's installation and operation manual.
Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the work include, and are limited to, the following:
American Standard, Kohler Co., Zurn Industries, LLC.

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CHRISTOPHER A. MEHAFFIE
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REGISTERED PROFESSIONAL ENGINEER
4/25/2025

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PLUMBING SPECIFICATIONS
P-401 (1)
03/12/25

2" REFERENCE LINE
KLH #: 26959

WALL HYDRANT SCHEDULE

PRODUCT					GENERAL		MISC
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES
WH1	WALL HYDRANT	WATTS	HY-420	22 40 00.00	REFER TO PLAN	NEW	INSTALL PER MANUFACTURER GUIDELINES. ASSE 1019 RATED.

DOMESTIC WATER EXPANSION TANK SCHEDULE

PRODUCT					MISC		GENERAL	
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	STORAGE VOLUME (GAL(IMP))	ACCESSORIES	LOCATION	STATUS
ET1	DOMESTIC WATER EXPANSION TANK	AMTROL	ST-12	22 00 00.00	4.4	INSTALL PER MANUFACTURER GUIDELINES.	EWH1	NEW

FLOOR DRAIN SCHEDULE

PRODUCT					GENERAL		MISC	FIXTURE UNITS	TRAP INFORMATION
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES	DFU	TRAP PRIMER
FD1	FLOOR DRAIN	WATTS	FD-100-A	22 13 19.00	REFER TO PLAN	NEW	INSTALL PER MANUFACTURER GUIDELINES. PROVIDE TRAP SEAL PER SPECIFICATIONS.	6	YES

1

HOSE BIB SCHEDULE

PRODUCT					GENERAL		MISC	FIXTURE UNITS			FLOW INFORMATION
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES	WSFU	CW SFU	HW SFU	FLUID FLOW
HB1	HOSE BIB	WATTS	SC8	22 40 00.00	REFER TO PLAN	NEW	INSTALL PER MANUFACTURER GUIDELINES.	--	--	--	--

MOP SINK SCHEDULE

PRODUCT					GENERAL		MISC	VALVE/FAUCET INFORMATION		FIXTURE UNITS				FLOW INFORMATION	TRAP INFORMATION
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES	FIXTURE MFG	FIXTURE MODEL	DFU	WSFU	CW SFU	HW SFU	FLUID FLOW	INTEGRAL TRAP
MS1	MOP SINK	FIAT	MSB2424	22 40 00.00	RECEIVING	NEW	COORDINATE WITH OWNER	FIAT	830AA	2	3	2.25	2.25	3	NO

1

SUPPLY BOX SCHEDULE

PRODUCT					GENERAL		MISC	VALVE/FAUCET INFORMATION		FIXTURE UNITS				FLOW INFORMATION	TRAP INFORMATION
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES	FIXTURE MFG	FIXTURE MODEL	DFU	WSFU	CW SFU	HW SFU	FLUID FLOW	INTEGRAL TRAP
SB1	SUPPLY BOX	OATEY	I2K	22 40 00.00	ENTRY	NEW	INSTALL PER MANUFACTURER GUIDELINES.	--	--	0.5	0.25	0.25	--	--	NO

SINK SCHEDULE

PRODUCT					GENERAL		MISC	VALVE/FAUCET INFORMATION		FIXTURE UNITS				FLOW INFORMATION	TRAP INFORMATION
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES	FIXTURE MFG	FIXTURE MODEL	DFU	WSFU	CW SFU	HW SFU	FLUID FLOW	INTEGRAL TRAP
SK1	SINK	ELKAY	ELUH3118	22 40 00.00	BREAK ROOM	NEW	COORDINATE FINAL SELECTION WITH OWNER.	AMERICAN STANDARD	7500.170	2	4	3	3	1.5	NO

LAVATORY SCHEDULE

PRODUCT					GENERAL		MISC	VALVE/FAUCET INFORMATION		FIXTURE UNITS				FLOW INFORMATION	TRAP INFORMATION
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES	FIXTURE MFG	FIXTURE MODEL	DFU	WSFU	CW SFU	HW SFU	FLUID FLOW	INTEGRAL TRAP
LV1	LAVATORY	AMERICAN STANDARD	LUCERNE 0356.421	22 40 00.00	RESTROOM	NEW	COORDINATE WITH OWNER.	AMERICAN STANDARD	RELIANT 7385.050	1	2	1.5	1.5	0.5	NO

TANK TYPE WATER CLOSET SCHEDULE

PRODUCT					FLOW INFORMATION	GENERAL		MISC	VALVE/FAUCET INFORMATION		FIXTURE UNITS				TRAP INFORMATION
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	GALLONS PER FLUSH (GAL(US))	LOCATION	STATUS	ACCESSORIES	FIXTURE MFG	FIXTURE MODEL	DFU	WSFU	CW SFU	HW SFU	INTEGRAL TRAP
WC1	TANK TYPE WATER CLOSET	AMERICAN STANDARD	CADET 215AA.104	22 40 00.00	1.28	RESTROOM	NEW	COORDINATE WITH OWNER.	--	--	4	5	5	--	YES

PLUMBING HEAT TRACE PANEL SCHEDULE

PRODUCT					GENERAL		MISC	ELECTRICAL															PRODUCT
MARK	DESCRIPTION	MANUFACTURER	MODEL	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES	CONNECTION MARK	ELECTRIC CONNECTION SUMMARY	CN TYPE	CN FURNISHED BY	CN INSTALLED BY	CN WIRED BY	MC TYPE	MC FURNISHED BY	MC INSTALLED BY	MC WIRED BY	DC TYPE	DC FURNISHED	DC INSTALLED BY	DC WIRED BY	FAULT CURRENT	MARK
HT1	PLUMBING HEAT TRACE PANEL	CHROMALOX	SRF 3	22 00 00.00	FREEZER	NEW	INSTALL PER MANUFACTURERS RECOMMENDATION.	HT1	HT1 - 120V/1PH, 50W, 20A OCP	LINE	PC	PC	PC	--	--	--	--	--	EC	EC	EC	HT1: 1755	HT1

INSTANTANEOUS ELECTRIC WATER HEATER SCHEDULE

PRODUCT						GENERAL		MISC	ELECTRICAL	DESIGN CONDITIONS		ELECTRICAL															PRODUCT
MARK	DESCRIPTION	MANUFACTURER	MODEL	OPERATING WEIGHT (LBS)	SECTION NUMBER	LOCATION	STATUS	ACCESSORIES	EFFICIENCY	EWT	LWT	CONNECTION MARK	ELECTRIC CONNECTION SUMMARY	CN TYPE	CN FURNISHED BY	CN INSTALLED BY	CN WIRED BY	MC TYPE	MC FURNISHED BY	MC INSTALLED BY	MC WIRED BY	DC TYPE	DC FURNISHED	DC INSTALLED BY	DC WIRED BY	FAULT CURRENT	MARK
IWH1	INSTANTANEOUS ELECTRIC WATER HEATER	EEMAX	AM005240T	6	22 33 00.00	RESTROOM	NEW	INSTALL PER MANUFACTURER GUIDELINES. ASSE 1070 RATED.	0.9	40	105	IWH1	IWH1 - 240V/1PH, 4.8KW HTG, 20A FLA	INT	MFR	MFR	MFR	--	--	--	--	--	EC	EC	EC	IWH1: 3306	IWH1
IWH2	INSTANTANEOUS ELECTRIC WATER HEATER	EEMAX	AM005240T	6	22 33 00.00	RESTROOM	NEW	INSTALL PER MANUFACTURER GUIDELINES. ASSE 1070 RATED.	0.9	40	105	IWH2	IWH2 - 240V/1PH, 4.8KW HTG, 20A FLA	INT	MFR	MFR	MFR	--	--	--	--	--	EC	EC	EC	IWH2: 3246	IWH2

TANK TYPE ELECTRIC WATER HEATER SCHEDULE

PRODUCT						MISC		GENERAL		ELECTRICAL	DESIGN CONDITIONS		ELECTRICAL															PRODUCT
MARK	DESCRIPTION	MANUFACTURER	MODEL	OPERATING WEIGHT (LBS)	SECTION NUMBER	STORAGE VOLUME (GAL(IMP))	ACCESSORIES	LOCATION	STATUS	EFFICIENCY	EWT	LWT	CONNECTION MARK	ELECTRIC CONNECTION SUMMARY	CN TYPE	CN FURNISHED BY	CN INSTALLED BY	CN WIRED BY	MC TYPE	MC FURNISHED BY	MC INSTALLED BY	MC WIRED BY	DC TYPE	DC FURNISHED	DC INSTALLED BY	DC WIRED BY	FAULT CURRENT	MARK
EWH1	TANK TYPE ELECTRIC WATER HEATER	AO SMITH	DEL 30	419	22 33 00.00	30	INSTALL PER MANUFACTURER GUIDELINES AND DETAIL.	RECEIVING PALLET AREA	NEW	0.9	40	140	EWH1	EWH1 - 240V/1PH, 4.5KW HTG	INT	MFR	MFR	MFR	--	--	--	--	--	EC	EC	EC	EWH1: 3104	EWH1

2" REFERENCE LINE
KLH #: 26959

STATE OF OHIO
CHRISTOPHER A. MEHAFFIE
E-80769
REGISTERED PROFESSIONAL ENGINEER
4/25/2025

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PLUMBING SCHEDULES
P-601
03/12/25