IMPROVEMENT PLANS

FOR

CEIA USA

HUDSON CROSSING PARKWAY HUDSON CROSSING BUSINESS PARK

IN THE

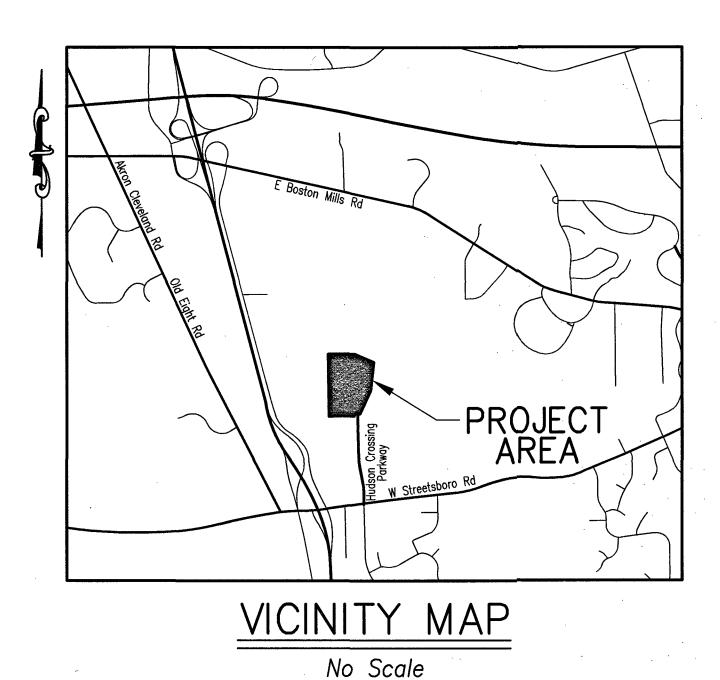
CITY OF HUDSON COUNTY OF SUMMIT STATE OF OHIO

PREMIER

Prevelopment Partners

5301 Grant Avenue
Cleveland, OH 44125
Phone: (216)341-1200







JULY 2019

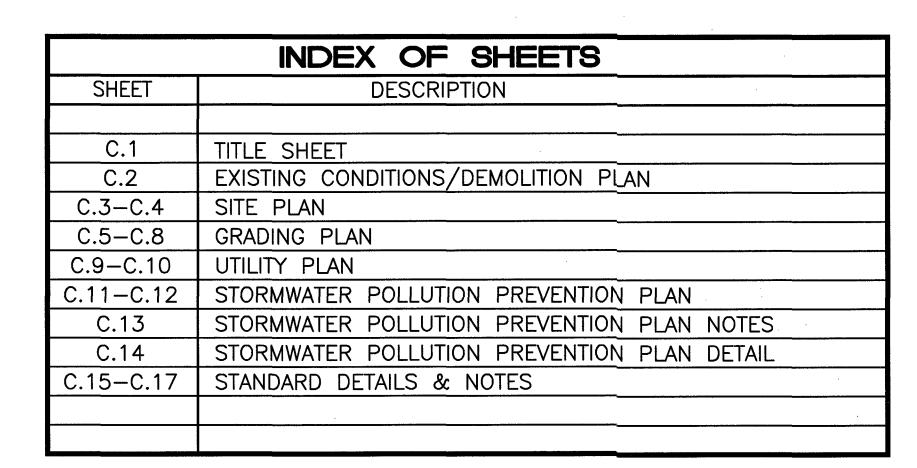


before you dig 🥥

TOTAL SITE ACREAGE: 32.18 AC.
EXISTING IMPERVIOUS AREA: 0.0 AC.
PROPOSED IMPERVIOUS AREA: 4.56 AC. (14%)

NOTE:

THE DEVELOPER SHALL CONTACT THE CITY OF HUDSON WHEN THIS SITE IS COMPLETED AND READY FOR OCCUPANCY. THE DEVELOPER SHALL PAY ALL COSTS OF THE SIGNAL TIMING ADJUSTMENTS TO THE SIGNAL AT HUDSON CROSSING AND THE ADJACENT SIGNAL AT SR 303 AND SR 8.





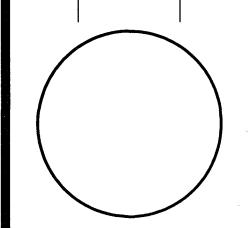




CHAGRIN VALLEY
ENGINEERING, LTD
22999 FORBES ROAD, SUITE B PHIN: (440) 439-19
CLEVELAND, OHO 44146 FAX: (440) 439-19

FOR PERMIT July 18, 2019
CITY COMMENT RESPONSE
Aug 19, 2019

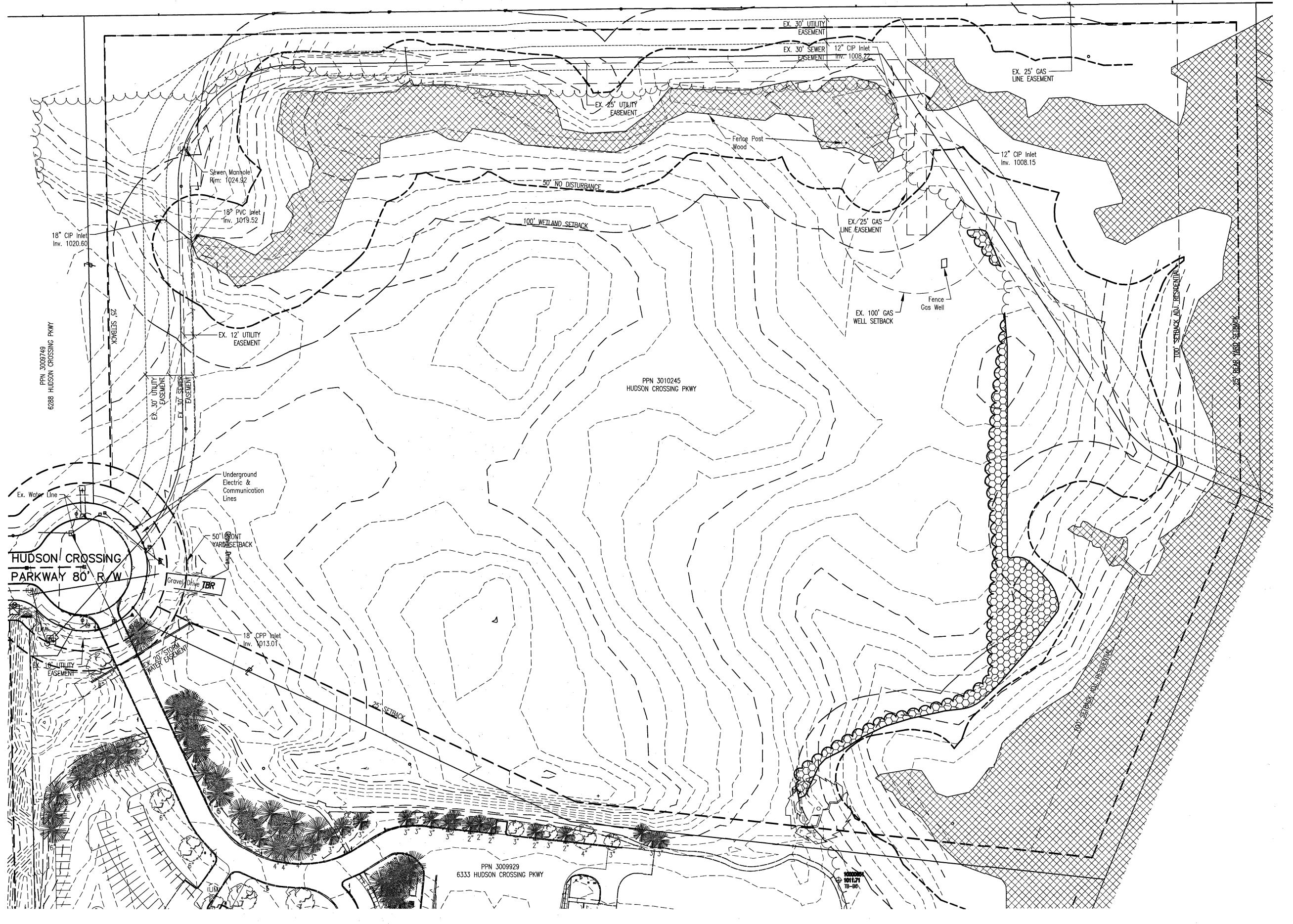
MANNESCHI & BENEDETTI PROPERTIES, LLC
HUDSON INDUSTRIAL SITE
HUDSON CROSSING PARKWAY
HUDSON, OHIO



Developer Job Numbe

Consultant Job Number

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GRAPHIC SCALE

(IN FEET) 1 inch = 60 ft.

INDEX OF SYMBOLS

○ Iron Pin→ MAG Nail© Cable Box Air Conditioning Unit

Electric Box

Electric Box (CEI) Electric Manhole
 Electric Pull Box

☐ Electric Vault ■ Electric Meter ■ Fiber Optic Box **™** Gas Meter ⊗ Gas Manhole

Monitoring Well
Sanitary Cleanout

O Sewer Manhole

□■■ Catch Basin

Downspout

Headwall

Telephone Box

Telephone Box (OBT)

Telephone Manhole ₩ Water Gate Valve A Siamese Hydrant

W Water Manhole

◆ Sprinkler Control Box

□ Water Valve Box

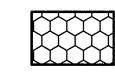
□ Utility Tone Marker

□ Basketball Hoop

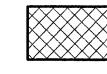
Bollard Flagpole
 Light Pole
 Utility Pole Sign ⊗ Pullbox

<u>LEGEND</u>

TBR = TO BE REMOVED



AREA OF TREE REMOVAL



EX. WETLANDS





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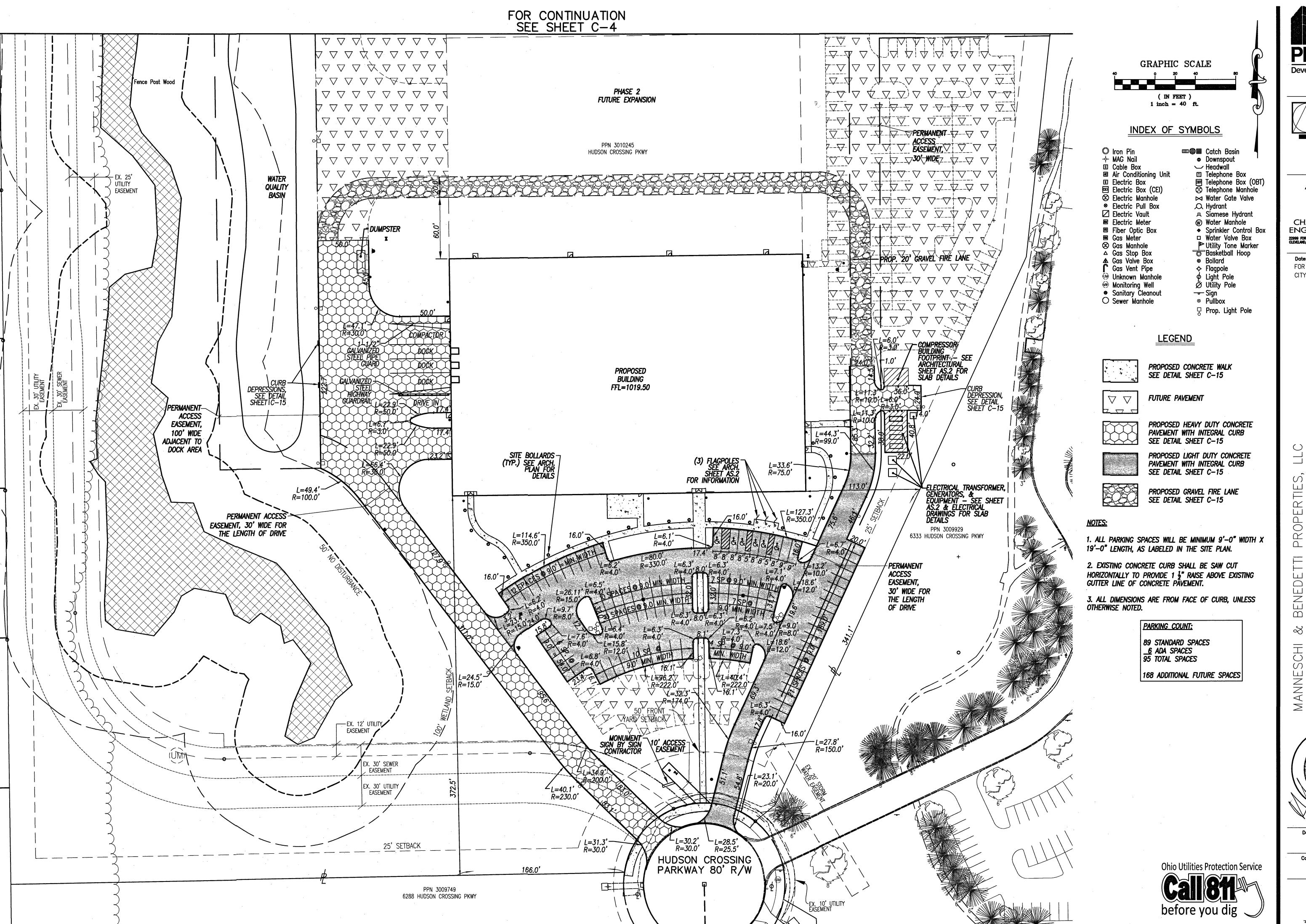


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EXISTING









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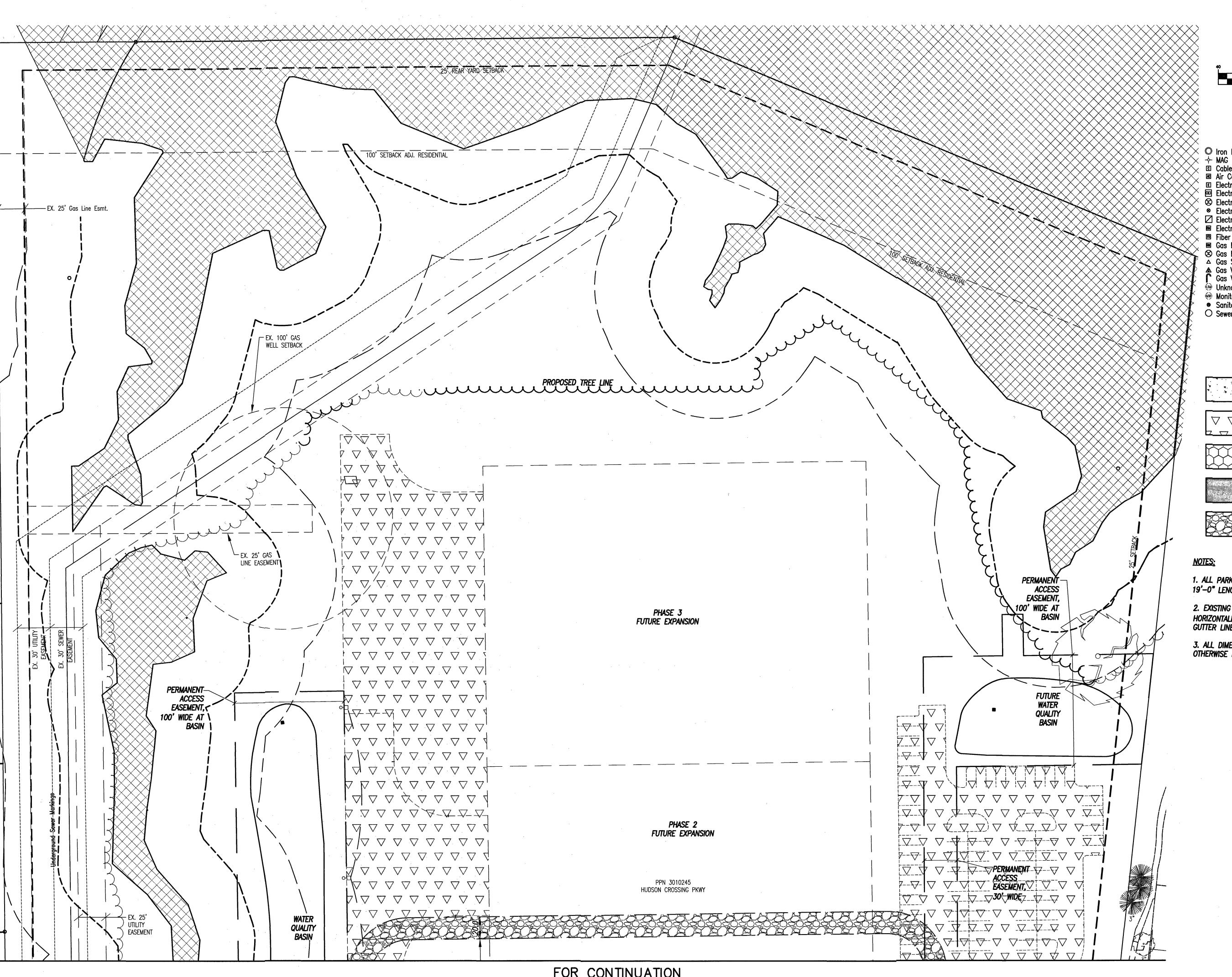
Aug 19, 2019

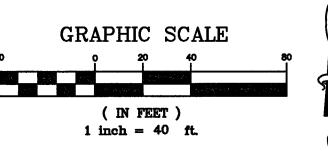
BENEDE

MANNE

HUDSON HUDSON







INDEX OF SYMBOLS

O Iron Pin → MAG Nail Cable Box Air Conditioning Unit ■ Electric Box▶ Electric Box (CEI) **Electric Manhole** ☑ Electric Vault

Electric Meter ■ Fiber Optic Box ■ Gas Meter

S Gas Manhole △ Gas Stop Box ▲ Gas Valve Box Cas Vent Pipe **Unknown Manhole** Monitoring Well Sanitary Cleanout O Sewer Manhole

□■ Catch Basin Downspout

→ Headwall ☐ Telephone Box Telephone Box (OBT)
Telephone Manhole ₩ Water Gate Valve A Hydrant A Siamese Hydrant W Water Manhole

◆ Sprinkler Control Box □ Water Valve Box Utility Tone Marker

Basketball Hoop Bollard → Flagpole

Light Pole Ø Utility Pole Sign ⊗ Pullbox

문 Prop. Light Pole

PROPER

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Development Partners

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FACSIMILE: 440.835.404;
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FOR PERMIT July 18, 2019

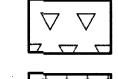
CITY COMMENT RESPONSE

Aug 19, 2019

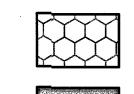
LEGEND



PROPOSED CONCRETE WALK SEE DETAIL SHEET C-15



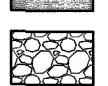
FUTURE PAVEMENT



PROPOSED HEAVY DUTY CONCRETE PAVEMENT WITH INTEGRAL CURB SEE DETAIL SHEET C-15



SEE DETAIL SHEET C-15



PROPOSED GRAVEL FIRE LANE SEE DETAIL SHEET C-15

1. ALL PARKING SPACES WILL BE MINIMUM 9'-0" WIDTH X 19'-0" LENGTH, AS LABELED IN THE SITE PLAN.

2. EXISTING CONCRETE CURB SHALL BE SAW CUT HORIZONTALLY TO PROVIDE 1 $\frac{1}{2}$ RAISE ABOVE EXISTING GUTTER LINE OF CONCRETE PAVEMENT.

3. ALL DIMENSIONS ARE FROM FACE OF CURB, UNLESS OTHERWISE NOTED.

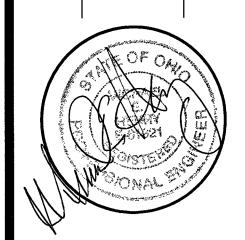
PARKING COUNT:

89 STANDARD SPACES _6 ADA SPACES
95 TOTAL SPACES

168 ADDITIONAL FUTURE SPACES

Ohio Utilities Protection Service

before you dig _



INDUST ROSSIN

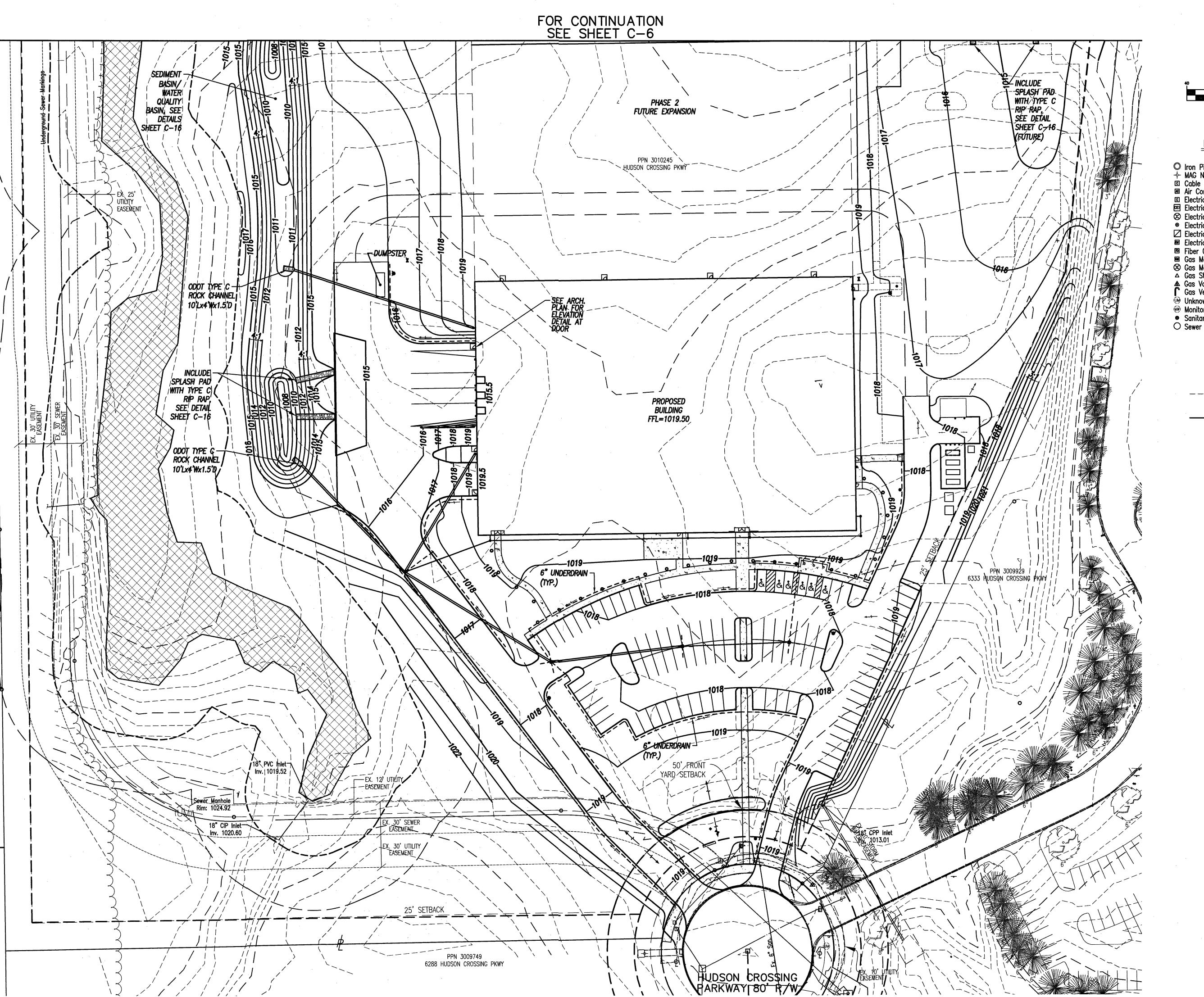
HUDSON CF

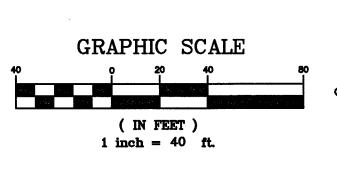
Consultant Job Number: 17.056

Drawing Number:

4 Of 17 Sheets

FOR CONTINUATION SEE SHEET C-3





INDEX OF SYMBOLS

© Cable Box

☑ Air Conditioning Unit ■ Electric Box
 ● Electric Manhole
 ● Electric Pull Box

☑ Electric Vault Electric Meter Fiber Optic Box

Gas Meter S Gas Manhole

△ Gas Stop Box

Gas Valve Box
Gas Vent Pipe Unknown Manhole Monitoring Well
Sanitary Cleanout
Sewer Manhole W Water Manhole
 ◆ Sprinkler Control Box
 □ Water Valve Box
 ▶ Utility Tone Marker
 □ Basketball Hoop

Bollard Flagpole
 Light Pole
 Utility Pole Sign Sign ⊗ Pullbox

© Catch Basin

Downspout

Headwall

Telephone Box

Telephone Box (OBT)

Telephone Manhole

Water Cataly I

₩ Water Gate Valve

д Siamese Hydrant

A Hydrant

LEGEND

WITH ELEVATION PROPOSED CONTOUR WITH ELEVATION

Ohio Utilities Protection Service

EXISTING CONTOUR





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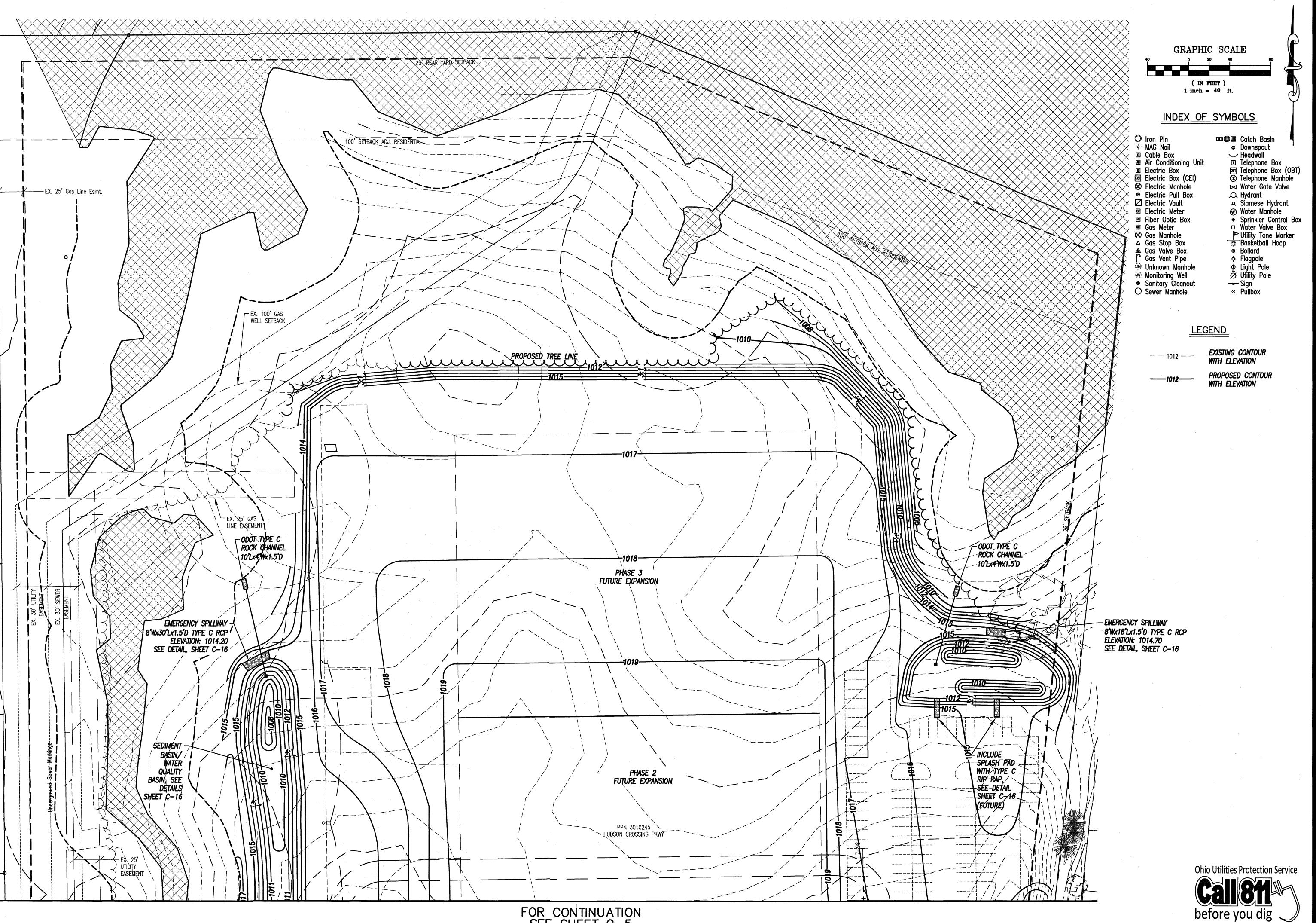


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FOR PERMIT July 18, 2019 CITY COMMENT RESPONSE Aug 19, 2019

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26031.B CENTER RIDGE R WESTLAKE, OHIO 44145 TELEPHONE: 440.835.395. FACSIMILE: 440.835.4042 MANUAL MANUAL PROPERTY OF THE PROP



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Aug 19, 2019

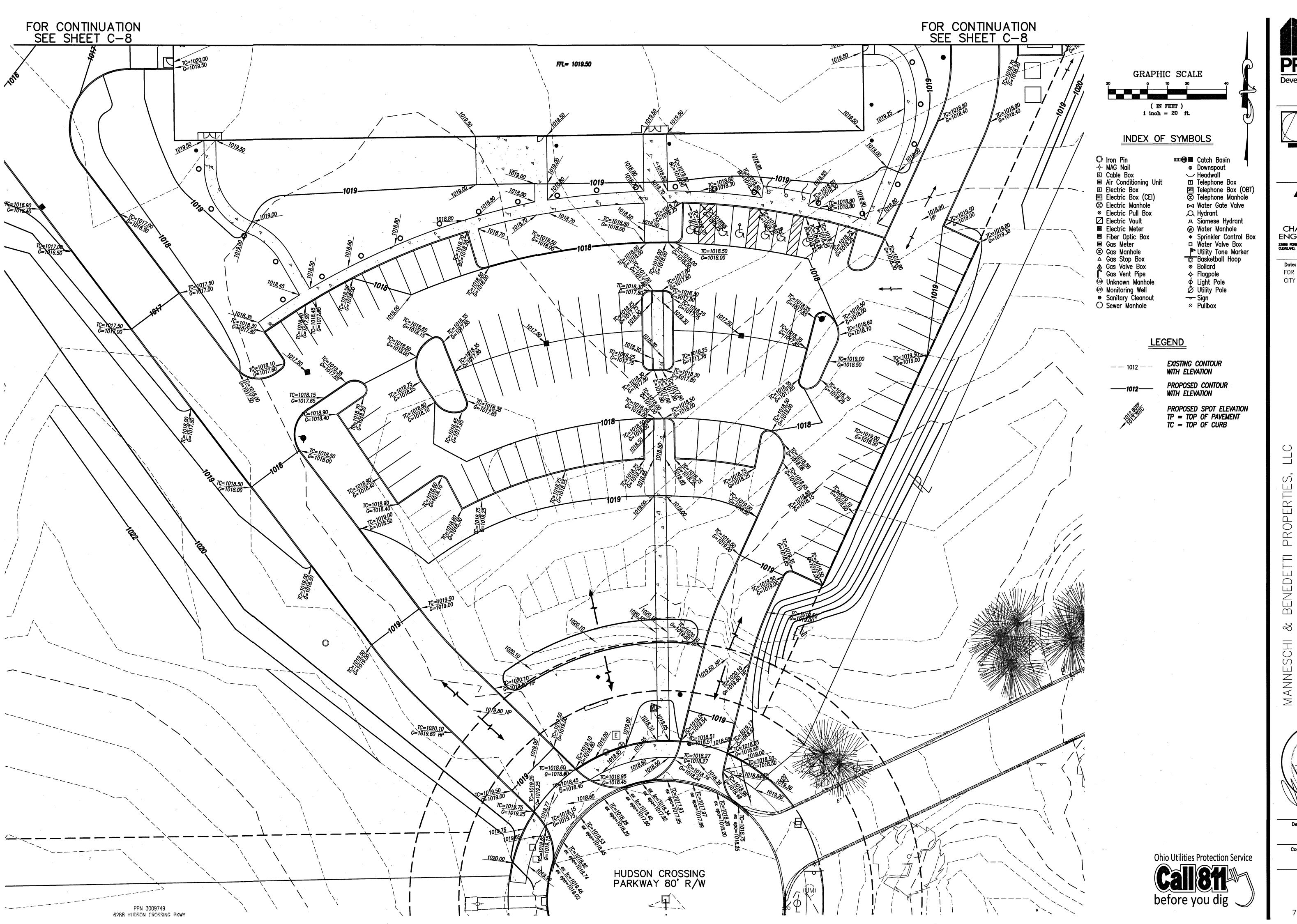
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FOR CONTINUATION SEE SHEET C-5







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Date:
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Aug 19, 2019

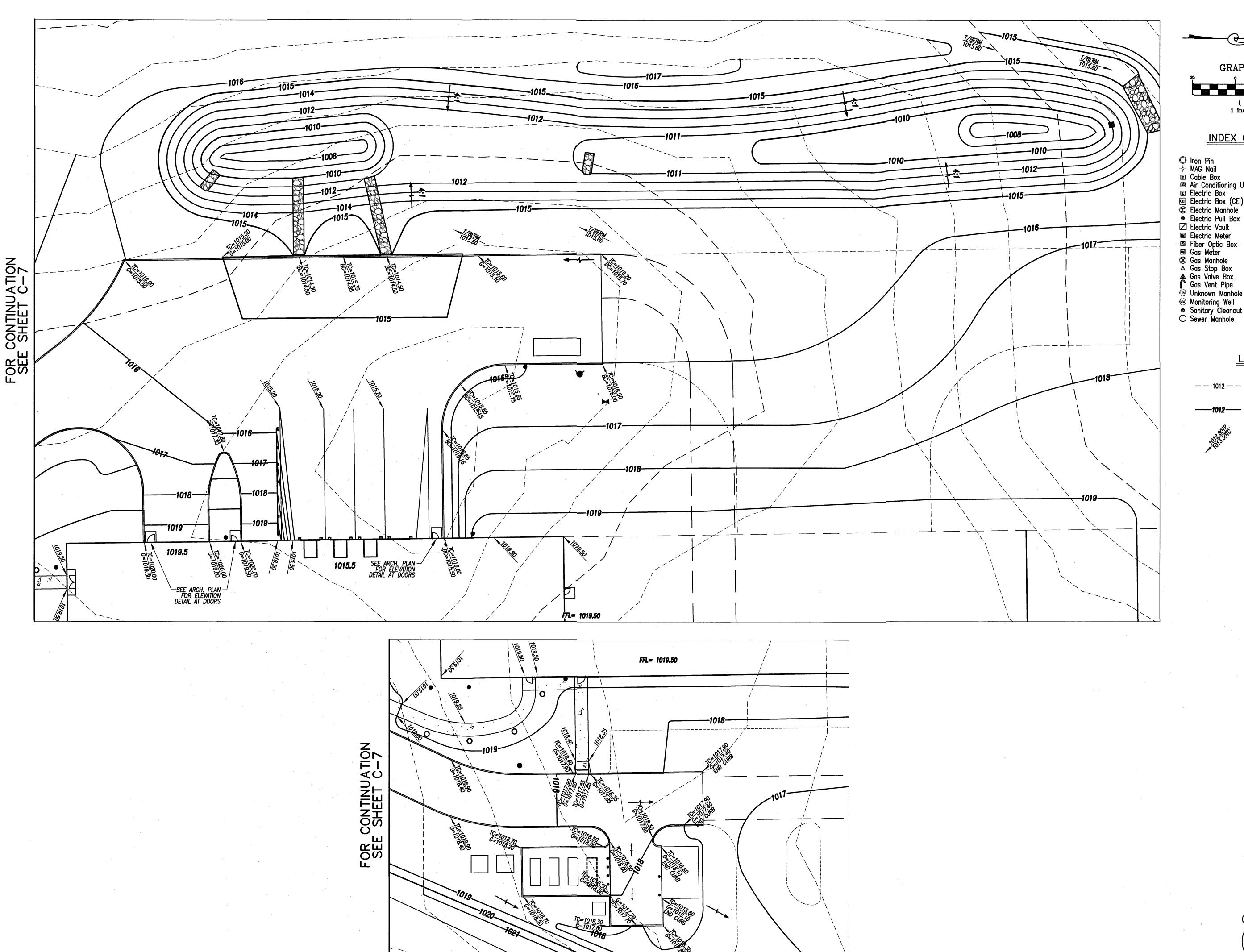
HUDSON INDUSTRIAL SITE
HUDSON CROSSING PARKWAY
HUDSON, OHIO

Developer Job Numbe

onsultant Job Num

Orawing Number:

7 Of 17 She





GRAPHIC SCALE (IN FEET)
1 inch = 20 ft.

INDEX OF SYMBOLS

→ MAG Nail Cable Box Air Conditioning Unit E Electric Box ⊡ Electric Box (CEI) **Electric Manhole** ■ Electric Meter

 W Water Manhole
 ◆ Sprinkler Control Box
 □ Water Valve Box
 ▶ Utility Tone Marker
 ➡ Basketball Hoop Bollard → Flagpole

∮ Light Pole Ø Utility Pole Sign ⊗ Pullbox

□■ Catch Basin

A Hydrant

DownspoutHeadwall

☐ Telephone Box

₩ Water Gate Valve

A Siamese Hydrant

☐ Telephone Box (OBT)
☐ Telephone Manhole

<u>LEGEND</u>

——·1012 ——

PROPOSED SPOT ELEVATION TP = TOP OF PAVEMENT TC = TOP OF CURB



EXISTING CONTOUR WITH ELEVATION

PROPOSED CONTOUR WITH ELEVATION

PREMIER

Development Partners

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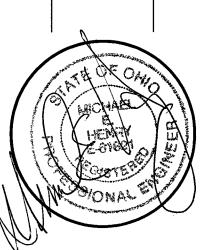
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Aug 19, 2019

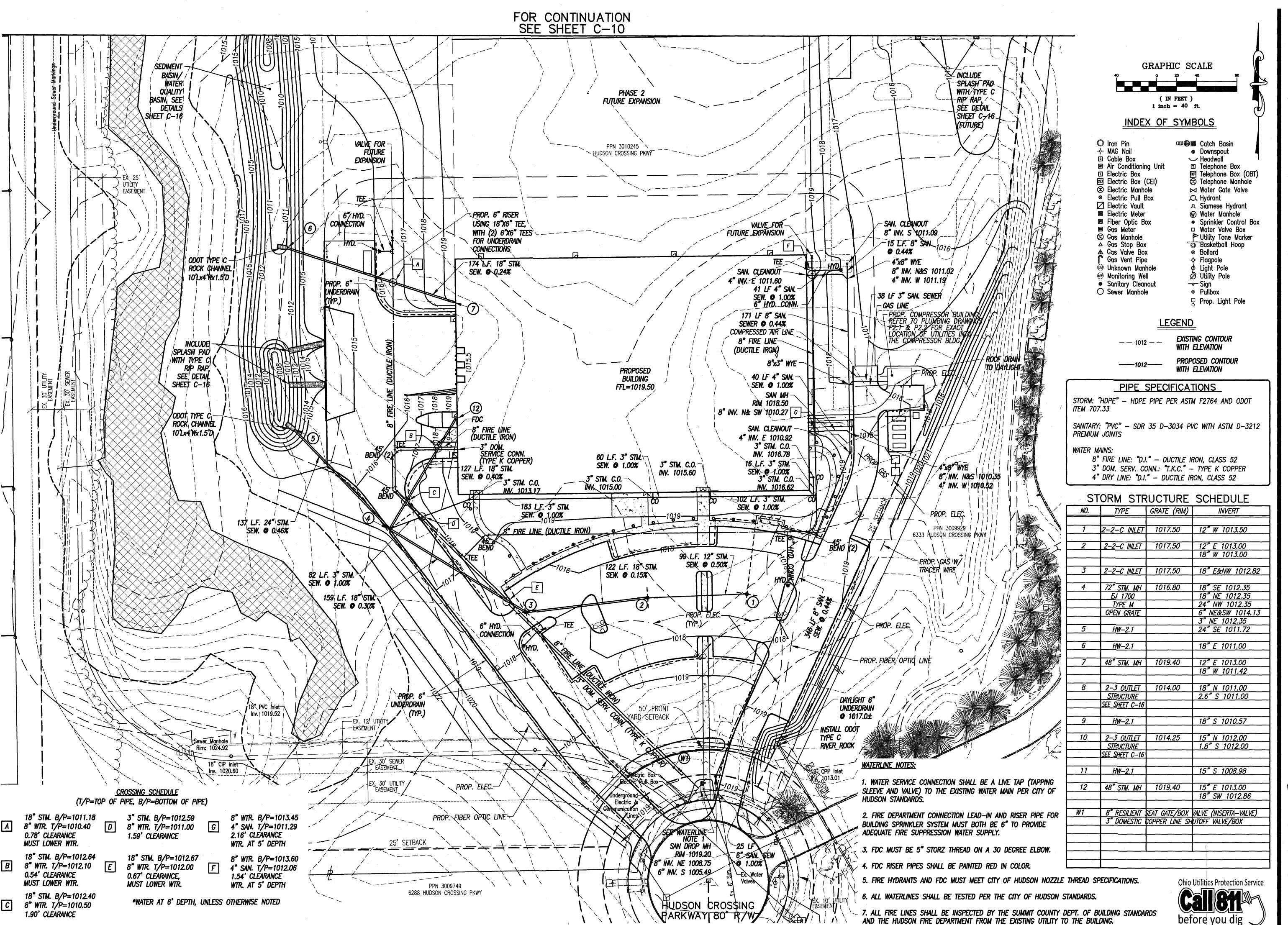
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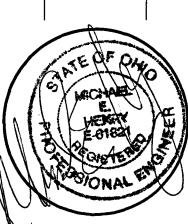
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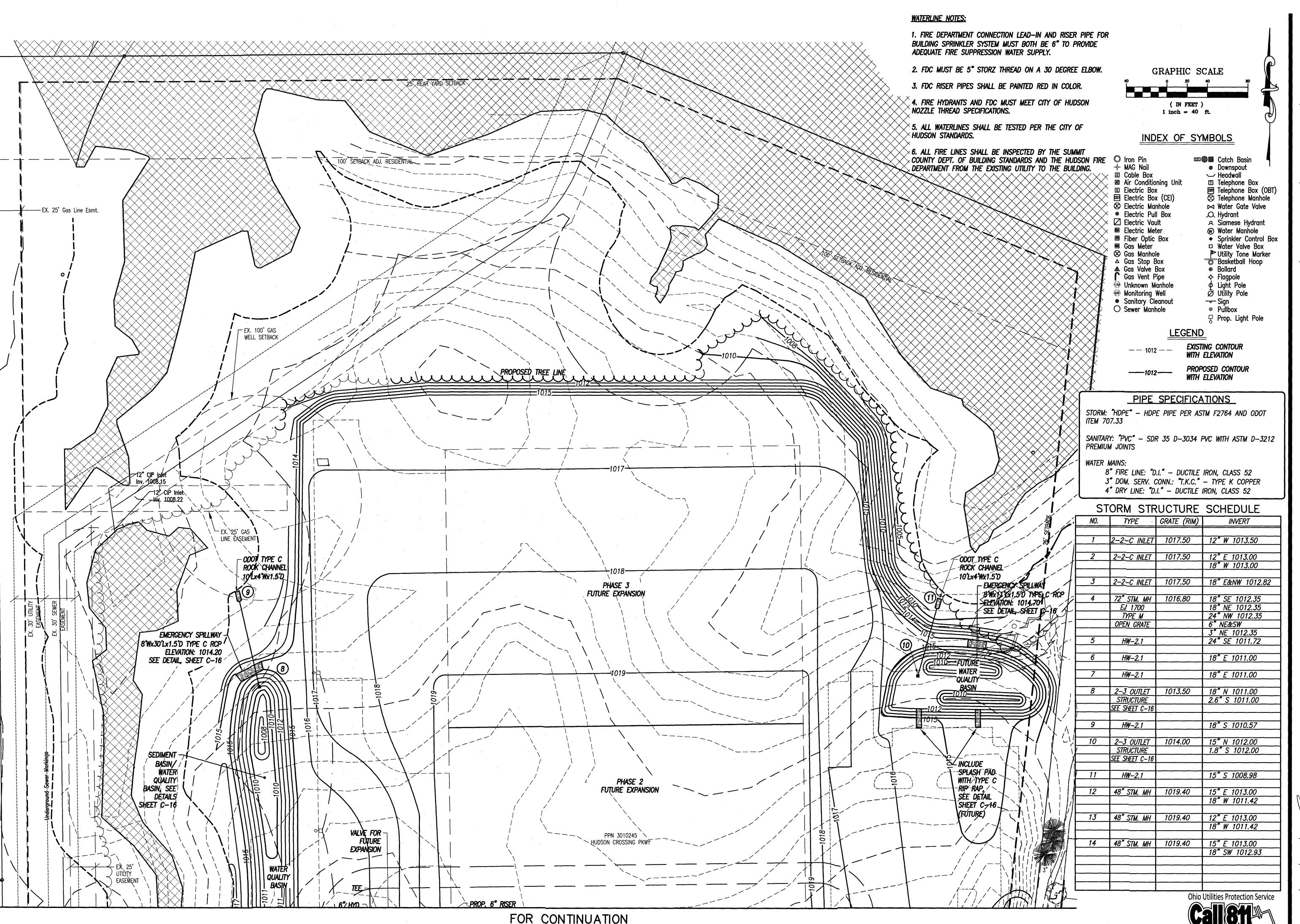


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17.056 Drawing Number:

9 Of 17 Sheets

AND THE HUDSON FIRE DEPARTMENT FROM THE EXISTING UTILITY TO THE BUILDING.



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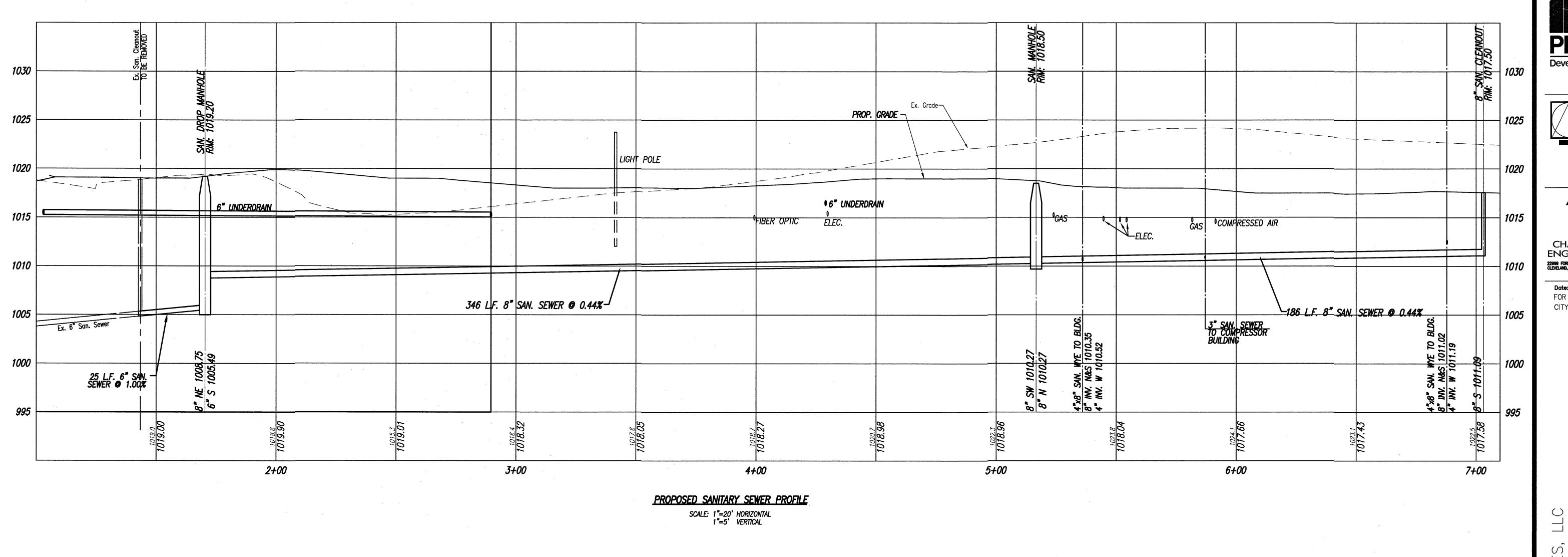
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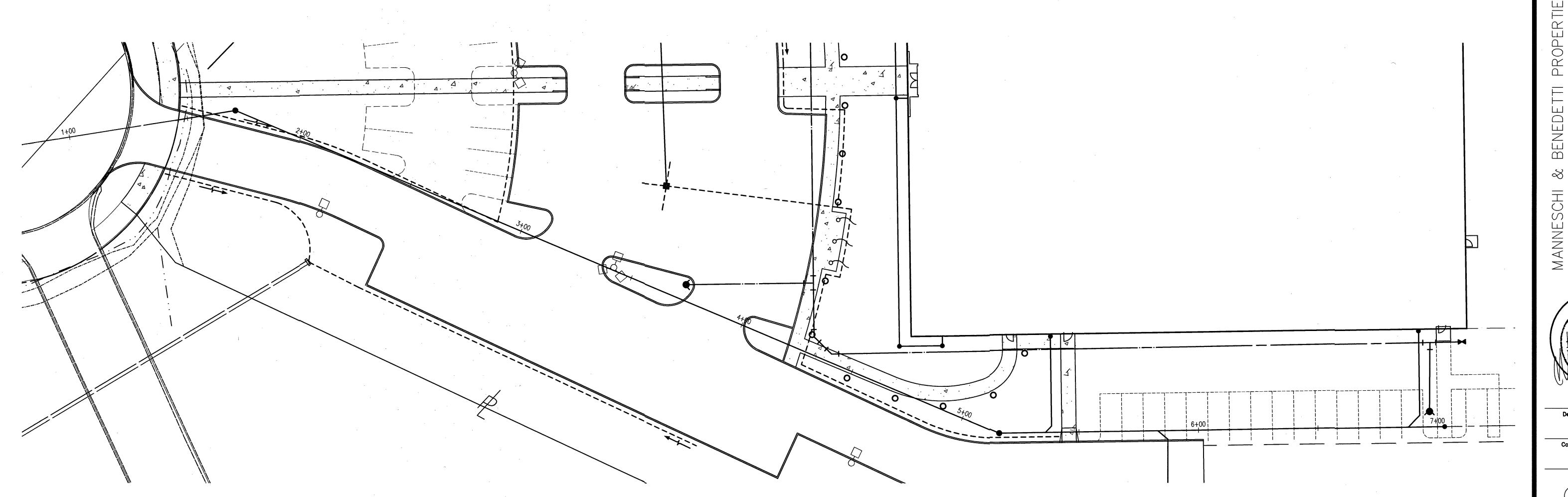


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10 **Of** 17 **Sheets**

FOR CONTINUATION SEE SHEET C-9











Pate:
FOR PERMIT July 18, 2019
CITY COMMENT RESPONSE
Aug 19, 2019

Approval Date:
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STRIAL SITE ING PARKWAY , OHIO

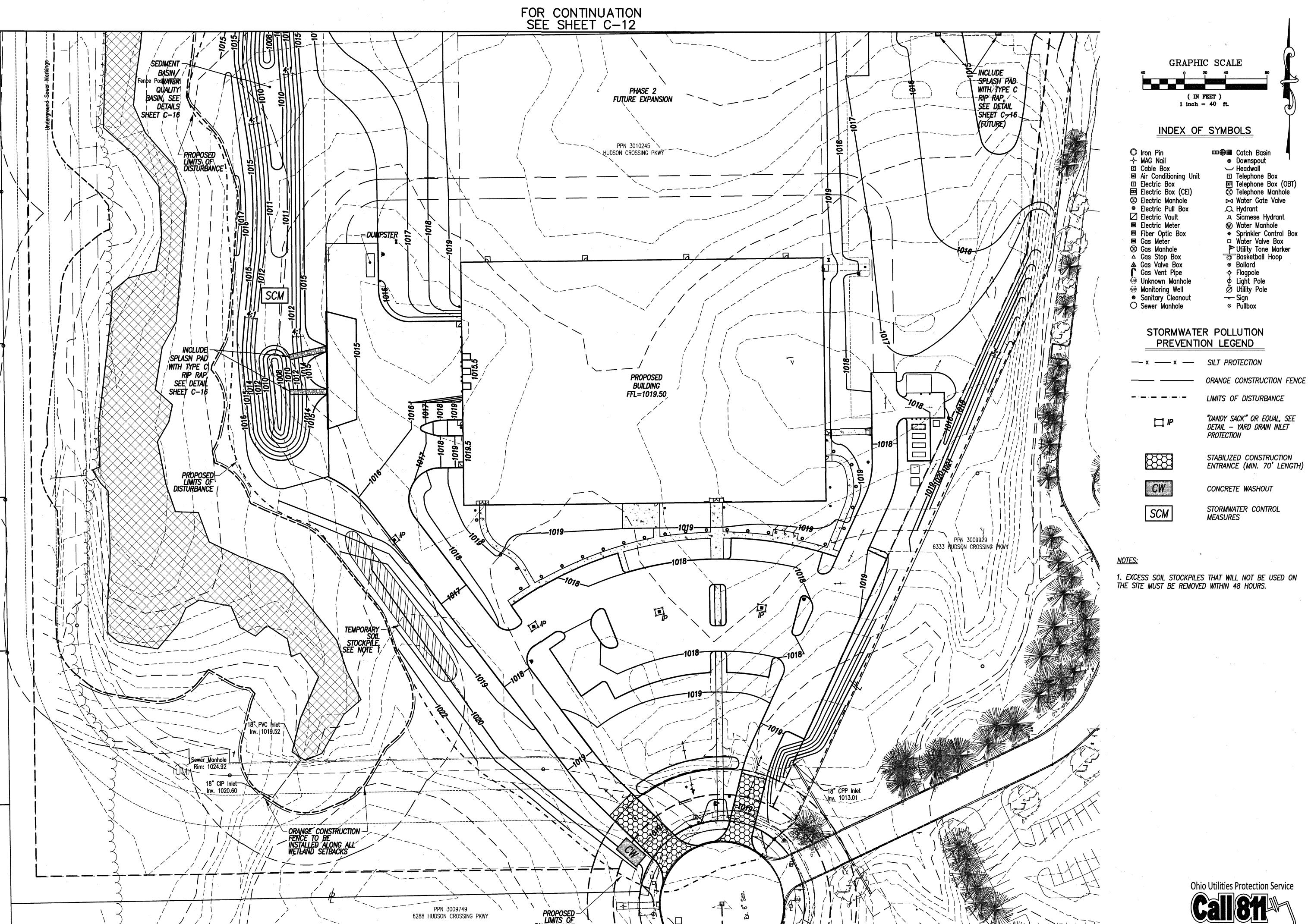
HUDSON INDUSTRIAL HUDSON CROSSING PAI HUDSON, OHIO

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Drawing Number:

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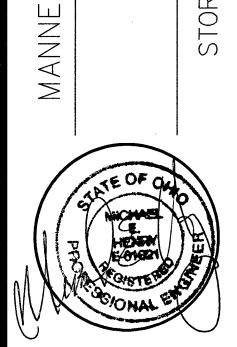
FOR PERMIT July 18, 2019 CITY COMMENT RESPONSE Aug 19, 2019

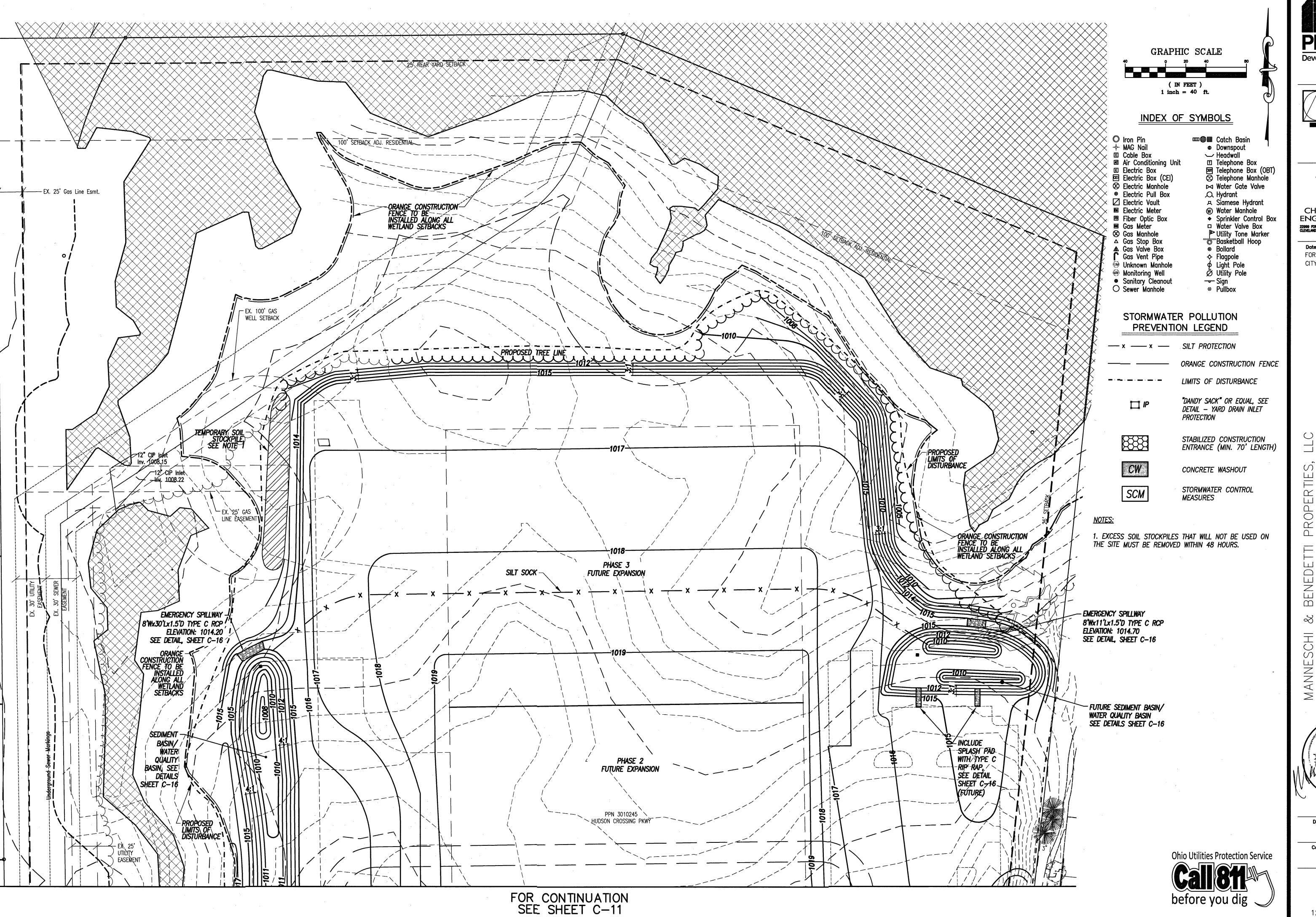
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17.056

SITE DESCRIPTION FOR 6336 HUDSON CROSSING PARKWAY

1. DESCRIPTION OF THE NATURE AND TYPE OF THE CONSTRUCTION ACTIVITY:

A. PROJECT NAME & LOCATION:
6336 HUDSON CROSSING PARKWAY
CITY OF HUDSON, COUNTY OF SUMMIT, STATE OF OHIO

B. NAME & CONTACT INFORMATION OF OWNER AND GENERAL CONTRACTOR (IF KNOWN):
PREMIER DEVELOPMENT PARTNERS
JERRY GRUSZEWSKI
5301 GRANT AVENUE
CLEVELAND. OHIO 44125

5301 GRANT AVENUE CLEVELAND, OHIO 44125 (216) 341-1200 JERRY@PREMIERDEVELOP.COM

C. OHIO ENVIRONMENTAL PROTECTION AGENCY FACILITY PERMIT # (IF APPLICABLE): 3GC10639*AG

D. THE PROJECT WILL CONSIST OF:
PROPOSED CONSTRUCTION OF A BUILDING, STANDARD AND HEAVY—DUTY CONCRETE PARKING WITH TRUCK DOCKS
AND PROPOSED GRAVEL FIRE LANE

E. TOTAL AREA OF THE SITE/PHASE: SITE 32.18 ACRES

F. AREA THAT IS EXPECTED TO BE DISTURBED (INCLUDING OFF—SITE BORROW AREAS): 10.10 ACRES

G. ESTIMATED TOTAL AMOUNT OF IMPERVIOUS SURFACES THAT WILL RESULT: 4.56 ACRES

H. ESTIMATED PERCENT OF THE TOTAL SITE TO BE COVERED BY IMPERVIOUS SURFACES: 14%

I. ESTIMATED START DATE 09-01-2019
ESTIMATED COMPLETION DATE 12-31-2019

ESTIMATED COMPLETION DATE 12-31-2019

J. NAME & CONTACT INFORMATION OF PROJECT ENGINEER: CHAGRIN VALLEY ENGINEERING (440) 439-1999

2. EXISTING DATA DESCRIBING THE SOIL:

SOIL TYPE % OF THE SITE

A. Ca 4.1% — CANADICE SILTY CLAY LOAM B. CcB 71.5% — CANEADEA SILT LOAM

C. GbB 13.5% — GEEBURG SILT LOAM, 2 TO 6 PERCENT SLOPES
D. GbC2 3.1% — GEEBURG SILT LOAM

D. GbC2 3.1% — GEEBURG SILT LOAM E. Ln 3.1% — LORAIN SILTY CLAY LOAM

F. Wt 4.8% — WILLETE MUCK

3. DESCRIPTION OF THE QUALITY OF ANY KNOWN POLLUTANT DISCHARGE FROM THE SITE SUCH AS THAT WHICH MAY RESULT FROM PREVIOUS CONTAMINATION CAUSED BY PRIOR LAND USES:

NO KNOWN POLLUTANTS

4. DESCRIPTION OF PRIOR LAND USES AT THE SITE:

UNDEVELOPED

5. NAME OF THE IMMEDIATE RECEIVING STREAM OR SURFACE WATER(S) AND THE FIRST SUBSEQUENT RECEIVING WATER(S):

UN-NAMED TRIBUTARY TO MUD BROOK

6. DESCRIPTION OF WETLANDS OR OTHER SPECIAL AQUATIC SITES THAT WILL BE DISTURBED OR WHICH WILL RECEIVE DISCHARGES FROM DISTURBED AREAS:

SITE DISCHARGES TO EXISTING WETLAND THAT WILL REMAIN UNDISTURBED

7. DESCRIPTION OF STORM WATER DISCHARGES ASSOCIATED WITH DEDICATED ASPHALT AND DEDICATED CONCRETE PLANTS, AND THE BEST MANAGEMENT PRACTICES TO ADDRESS POLLUTANTS IN THESE STORM WATER DISCHARGES:

NONE

8. SCHEDULE DESCRIBING THE SEQUENCE OF MAJOR SOIL DISTURBING OPERATIONS AND THE IMPLEMENTATION OF SCMS TO CONTROL EROSION, SEDIMENT, AND NON—SEDIMENT POLLUTANTS.

SEE CONSTRUCTION SCHEDULE—THIS SHEET

GENERAL NOTES FOR SEDIMENT POLLUTANT CONTROLS

1. PERIMETER SEDIMENT CONTROLS (I.E. SEDIMENT TRAPS, SILT FENCE, COMPOST SOCKS, COMPOST BERMS, ETC...) SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN (7) DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPSLOPE AREAS DRAINING TO THEM ARE PERMANENTLY STABILIZED, OR AS DIRECTED BY THE HUDSON CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE.

- 2. NO EROSION AND SEDIMENT CONTROL BMPS SHALL BE REMOVED FROM THE SITE PRIOR TO ADEQUATE PERMANENT STABILIZATION OF THE ASSOCIATED UPLAND DRAINAGE AREAS AND WITHOUT FIRST OBTAINING AUTHORIZATION FROM THE HUDSON CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, UNLESS THEIR REMOVAL IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.
- 3. THERE SHALL BE NO SEDIMENT—LADEN OR TURBID DISCHARGES TO WATER RESOURCES OR WETLANDS RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUNDWATER CONTAINS SEDIMENT, IT MUST PASS THROUGH A SEDIMENT TRAP OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTLING IN PLACE OR BY DEWATERING INTO A SUMP PIT, FILTER BAG OR COMPARABLE PRACTICE. GROUND WATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE. HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT—LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
- 4. STREETS DIRECTLY ADJACENT TO CONSTRUCTION ENTRANCES AND RECEIVING TRAFFIC FROM THE DEVELOPMENT AREA, SHALL BE CLEANED DAILY TO REMOVE SEDIMENT TRACKED OFF—SITE. IF APPLICABLE, THE CATCH BASINS ON THESE STREETS NEAREST TO THE CONSTRUCTION ENTRANCES SHALL ALSO BE CLEANED WEEKLY. BASED ON SITE CONDITIONS, THE HUDSON CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, MAY REQUIRE ADDITIONAL BEST MANAGEMENT PRACTICES TO CONTROL OFF—SITE TRACKING AND DUST.
- 5. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, OR HIS/HER REPRESENTATIVE, TO INSPECT ALL CONTROLS ON THE

- SITE AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN TWENTY—FOUR (24) HOURS AFTER ANY STORM EVENT GREATER THAN ONE—HALF INCH OF RAIN PER TWENTY—FOUR (24) HOUR PERIOD. WHEN INSPECTIONS REVEAL THE NEED FOR REPAIR, REPLACEMENT, OR INSTALLATION OF EROSION AND SEDIMENT CONTROL SCMS, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
 - C. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT—SETTLING POND, IT MUST BE REPAIRED OR MAINTAINED WITHIN THREE (3) DAYS OF THE INSPECTION. SEDIMENT—SETTLING PONDS MUST BE REPAIRED OR MAINTAINED WITHIN TEN (10) DAYS OF THE INSPECTION.
 - D. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AS DETAILED IN THE SWP3 AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3 MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN TEN (10) DAYS OF THE INSPECTION.
- E. WHEN PRACTICES DEPICTED ON THE SWPPP ARE NOT INSTALLED: IF AN INTERNAL INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE, THE CONTROL PRACTICE MUST BE IMPLEMENTED WITHIN TEN (10) DAYS FROM THE DATE OF THE INSPECTION. IF THE INTERNAL INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD MUST CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.
- 6. THE APPLICANT SHALL MAINTAIN FOR THREE (3) YEARS FOLLOWING FINAL STABILIZATION THE RESULTS OF THESE INSPECTIONS, THE NAMES AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTIONS, THE DATES OF INSPECTIONS, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3, A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3. AND INFORMATION ON ANY INCIDENTS OF NON—COMPLIANCE DETERMINED BY THESE INSPECTIONS.
- 7. ALL EROSION AND SEDIMENT CONTROL PRACTICES SPECIFIED ON THIS PLAN SHALL CONFORM WITH DETAILS AND SPECIFICATIONS OUTLINED IN THE CURRENT VERSION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES BOOKLET, "RAINWATER AND LAND DEVELOPMENT", OR AS SPECIFIED BY THE HUDSON CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE.
- 8. EROSION AND SEDIMENT CONTROL PRACTICES NOT ALREADY SPECIFIED ON THIS PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH—MOVING ACTIVITY. ADDITIONAL PRACTICES SHALL BE IMPLEMENTED AT THE DEVELOPER'S EXPENSE AS DIRECTED BY THE HUDSON CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE.
- 9. NO STRUCTURAL SEDIMENT CONTROLS (E.G. SILT FENCE, SEDIMENT TRAPS, ETC.) SHALL BE USED IN A WATER RESOURCE OR WETLAND, UNLESS THEIR USE IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.
- 10. SOIL STOCKPILES, TOPSOIL OR OTHERWISE, SHALL BE SITUATED AWAY FROM STREETS, SWALES, OR OTHER WATERWAYS AND SHALL BE SEEDED AND/OR MULCHED IMMEDIATELY.
- 11. ON—SITE PERSONNEL SHALL TAKE ALL NECESSARY MEASURES TO COMPLY WITH APPLICABLE REGULATIONS REGARDING FUGITIVE DUST EMISSIONS, INCLUDING OBTAINING NECESSARY PERMITS FOR SUCH EMISSIONS. THE HUDSON CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, MAY REQUIRE DUST CONTROLS INCLUDING, BUT NOT LIMITED TO, THE USE OF WATER TRUCKS TO WET DISTURBED AREAS, TARPING STOCKPILES, TEMPORARY STABILIZATION OF DISTURBED AREAS, AND REGULATION OF THE SPEED OF VEHICLES ON THE SITE.
- 12. VEGETATIVE STABILIZATION, DISTURBED AREAS, WHICH WILL REMAIN UN—WORKED FOR A PERIOD OF FOURTEEN (14) DAYS OR GREATER SHALL BE STABILIZED WITH SEEDING AND MULCHING OR OTHER APPROPRIATE MEANS WITHIN SEVEN (7) DAYS AFTER THE LAST DISTURBANCE. DISTURBED AREAS THAT WILL REMAIN DORMANT FOR MORE THAN 14 DAYS WITHIN 50 FEET OF A STREAM SHALL HAVE TEMPORARY EROSION CONTROL MEASURES, INCLUDING BUT NOT LIMITED TO SEEDING AND MULCHING, APPLIED WITHIN 2 DAYS. DISTURBED AREAS THAT HAVE REACHED FINAL GRADE SHALL BE STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE.
- 13. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON SHALL HAVE A MINIMUM OF 80% UNIFORM VEGETATIVE COVER PRIOR TO FINAL INSPECTION, AND IN THE OPINION OF THE HUDSON CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, WILL BE MATURE ENOUGH TO CONTROL EROSION SATISFACTORILY AND SURVIVE SEVERE WEATHER.
- 14. IMPLEMENTATION OF EROSION AND SEDIMENT CONTROLS SHALL CONFORM TO THE CITY OF HUDSON CODIFIED ORDINANCES AND THE OHIO EPA CONSTRUCTION GENERAL PERMIT #OHCOOOOO4. IF A CONFLICT EXISTS BETWEEN THE TWO REGARDING EROSION AND SEDIMENT CONTROL IMPLEMENTATION THE MORE RESTRICTIVE SHALL APPLY.

GENERAL NOTES FOR NON-SEDIMENT POLLUTANT CONTROLS

- 1. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. THE INDIVIDUAL WHO MANAGES THE DAY—TO—DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR ENSURING ALL FORMS OF WASTE ARE PROPERLY DISPOSED OF.
- 2. CONTAMINATED SOILS FROM REDEVELOPMENT SITES SHALL BE DISPOSED OF PROPERLY. RUNOFF FROM CONTAMINATED SOILS SHALL NOT BE DISCHARGED FROM THE SITE. PROPER PERMITS SHALL BE OBTAINED FOR DEVELOPMENT PROJECTS ON SOLID WASTE LANDFILL SITES OR REDEVELOPMENT SITES.
- 3. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FT. OF THE SUMP SHALL BE CUT AND PLUGGED. FOR SMALL PROJECTS, TRUCK CHUTES MAY BE RINSED AWAY FROM ANY WATER CONVEYANCES.
- 4. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF. ANY AND ALL WASTE MATERIALS (SOLID, HAZARDOUS, CONSTRUCTION & DEMOLITION, SANITARY, TOXIC, CONTAMINATED SOILS, ETC.) GENERATED AT THE SITE SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL RULES/REGULATIONS. ON—SITE STORAGE CONTAINERS SHALL BE COVERED AND NOT LEAKING. IT IS PROHIBITED TO BURN, BURY OR POUR OUT ONTO THE GROUND OR INTO THE STORM SEWERS ANY SOLVENTS, PAINTS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS AND ANY OTHER SUCH TOXIC OR HAZARDOUS MATERIALS OR WASTES.
- 5. HANDLING CONSTRUCTION CHEMICALS. MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.
- 6. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT WITH A MINIMUM CAPACITY EQUAL TO 110% OF THE VOLUME OF ALL CONTAINERS IN A STORAGE AREA SHALL BE PROVIDED FOR ALL FUEL/LIQUID STORAGE TANKS AND DRUMS.
- 7. ALL SANITARY WASTE SHALL BE COLLECTED FROM PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.
- 8. THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:
 - A. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
 - B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.

- C. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER'S LABEL.
 SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- D. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- E. THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- F. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON SITE.
- 9. IN ADDITION TO PREVIOUS NOTES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEAN-UP:
 - A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN—UP WILL BE POSTED AND SITE PERSONNEL MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.
 - MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY DESIGNATED FOR THIS PURPOSE.
 - C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
 - . THE SPILL AREA WILL BE KEPT WELL—VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
 - E. SPILLS OF TOXIC OR HAZARDOUS MATERIALS WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
 - F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
 - G. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY—TO—DAY OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ON SITE.
- 10. ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE WILL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714 AND LOCAL REGULATIONS.
- 11. SPILLS OF 25 GALLONS OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA 1-800-282-9378, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE. ALL SPILLS, WHICH RESULT IN CONTACT WITH WATERS OF THE STATE, MUST BE REPORTED TO OHIO EPA'S HOTLINE.

12. OPEN BURNING IS PROHIBITED.

CONSTRUCTION SCHEDULE

- 1. INSTALL SILT PROTECTION AND INLET PROTECTION
- 2. CONSTRUCT WATER QUALITY BASIN. INSTALL TEMPORARY SKIMMER ON WATER QUALITY BASIN PER PLAN DETAILS.
- 3. PERFORM CLEARING AND TOPSOIL STRIPPING.
- 4. PROVIDE CONCRETE WASHOUT PRIOR TO CURB AND WALK INSTALLATION.
- 5. APPLY PERMANENT SEED/MULCH WITH EROSION CONTROL MATTING TO WATER QUALITY BASIN SIDE SLOPES AND ALL DISTURBED AREAS
- 6. CONSTRUCT BUILDING, PAVING, UTILITIES, AND ALL PLANNED IMPROVEMENTS.
- 7. PERFORM FINAL GRADING.
- 8. APPLY PERMANENT VEGETATIVE STABILIZATION TO ALL LANDSCAPED AREAS UPON SATISFACTORY ESTABLISHMENT OF VEGETATION (70% UNIFORM COVERAGE).
- 9. INSPECT AND CLEAN PROPOSED OUTLET STRUCTURE WITHIN WATER QUALITY BASIN. REMOVE TEMPORARY SKIMMER. REMOVE ACCUMULATED SEDIMENT AS NECESSARY TO RESTORE PERMANENT DESIGN VOLUMES WITHIN WATER QUALITY BASIN.

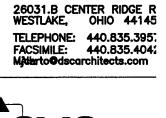
SWP3 AMENDMENT LOG

DATE

SWP3 ACTIVITY INITIATED	DESCRIPTION OF SWP3 ACTIVITY	SWP3 ACTIVITY CEASED (TEMP.OR PERM.)







CHAGRIN VALLEY
ENGINEERING, LTD.

22099 FORBES ROAD, SUITE B PHIN: (440) 439-1999
CLEVELAND, CHIO 44146 FAX: (440) 439-1969

FOR PERMIT July 18, 2019 CITY COMMENT RESPONSE Aug 19, 2019

Approved By:
Approval Date:
Scale:

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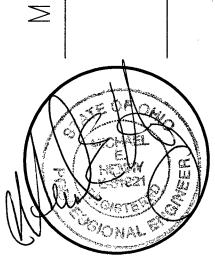
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ION PLAN

INDUSTRIAL SITE ROSSING PARKWAY DSON, OHIO

ANNESCHI & BENEDI HUDSON INDI HUDSON CROS



Developer Job Numb

Consultant Job Number: 17.056

Drawing Number:

PURPOSE & DESCRIPTION Filtrexx SiltSoxxTM are a three-dimensional tubular sediment control and storm water runoff filtration device typically used for perimeter control of

APPLICATION

Filtrexx SiltSoxx[™] are to be installed down slope of any disturbed area requiring erosion and sediment control and filtration of soluble pollutants from runoff. SiltSoxx[™] are effective when installed perpendicular to sheet or low concentrated flow. Acceptable applications include:

- Site perimeters Above and below disturbed areas subject to sheet runoff, interrill and rill erosion
- Above and below exposed and erodable slopes
- Around area drains or inlets located in a 'sump' On compacted soils where trenching of silt fence is difficult or impossible
- Around sensitive trees where trenching of silt fence is not beneficial for tree survival or may unnecessarily disturb established vegetation. On frozen ground where trenching of silt fence is impossible.
- On paved surfaces where trenching of silt fence is impossible.
- SiltSoxx[™] used for perimeter control of sediment and soluble pollutants in storm runoff shall meet Filtrexx Soxx[™] Material Specifications and use Certified Filtrexx FilterMedia[™].
 Contractor is required to be Filtrexx Certified[™] as determined by Filtrexx International, LLC (440-926-2607 or visit website at www.filtrexx.com).
- Certification shall be considered current if appropriate identification is shown during time of bid or at time of application (current listing can be found at www.filtrexx.com). Look for the Filtrexx Certified^{1M} Seal.

 SiltSoxxTM will be placed at locations indicated on plans as directed by the Engineer.

 SiltSoxxTM should be installed parallel to the base of the slope or other disturbed area. In extreme conditions (i.e., 2:1 slopes), a second SiltSoxxTM shall
- be constructed at the top of the slope. Stakes shall be installed through the middle of the SiltSoxxTM on 10 ft (3m) centers, using 2 in (50mm) by 2 in (50mm) by 3 ft (1m) wooden stakes. In the event staking is not possible, i.e., when SiltSoxxTM are used on pavement, heavy concrete blocks shall be used behind the SiltSoxxTM to help
- stacing depth for sand and sit loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.

 Loose compost may be backfilled along the upslope side of the SiltSooxTM, filling the seam between the soil surface and the device, improving filtration
- and sediment retention.

 8. If the SiltSoxxTM is to be left as a permanent filter or part of the natural landscape, it may be seeded at time of installation for establishment of
- permanent vegetation. The Engineer will specify seed requirements.

 9. Filtrexx SiltSoxxTM are not to be used in perennial, ephemeral, or intermittent streams. See design drawing schematic for correct Filtrexx SiltSoxxTM installation (Figure 1.1).

INSPECTION and MAINTENANCE

Routine inspection should be conducted within 24 hrs of a runoff event or as designated by the regulating authority. SiltSoxxTM should be regularly inspected to make sure they maintain their shape and are producing adequate hydraulic flow-through. If ponding becomes excessive, additional SiliSoxx may be required to reduce effective slope length or sediment removal may be necessary. SiltSoxx shall be inspected until area above has been permanently stabilized and construction activity has ceased

1. The Contractor shall maintain the SiltSoxxTM in a functional condition at all times and it shall be routinely inspected.

- If the SiltSoxx^{IM} has been damaged, it shall be repaired, or replaced if beyond repair.

 The Contractor shall remove sediment at the base of the upslope side of the SiltSoxx^{IM} when accumulation has reached 1/2 of the effective height of the SiltSoxx^{IM}, or as directed by the Engineer. Alternatively, a new SiltSoxx^{IM} can be placed on top of and slightly behind the original one creating more
- sediment storage capacity without soil disturbance.

 SiltSoxx^{IM} shall be maintained until disturbed area above the device has been permanently stabilized and construction activity has ceased.

 The FilterMedia^{IM} will be dispersed on site once disturbed area has been permanently stabilized, construction activity has ceased, or as determined by
- For long-term sediment and pollution control applications, SiltSoxxTM can be seeded at the time of installation to create a vegetative filtering system for prolonged and increased filtration of sediment and soluble pollutants (contained vegetative filter strip). The appropriate seed mix shall be determined by the Engineer.

Guidelines for Temporary Seeding

1. Disturbed areas must be temporarily stabilized as specified in the following table:

ithin two (2) days of the most recent disturbance if that ea will remain idle for more than fourteen (14) days.
ca will formall full for more than founteen (14) days.
ithin seven (7) days of the most recent disturbance within e area. or residential subdivisions, disturbed area must be abilized at least seven (7) days prior to transfer of permit overage for the individual lot(s).
ior to the onset of winter weather.
a

2. The seedbed should be loose to ensure the success of establishing vegetation. However, temporary seeding shall not be postponed if ideal seedbed preparation is not possible. 3. Establishment of temporary vegetation may require the use of soil amendments. Soil tests should be taken on the site to predict the need for lime and fertilizer. 4. 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.

Application of temporary seeding shall include mulch, which shall be applied during or immediately after seeding.

5. Seeded areas shall be inspected for failure and vegetation shall be re-established as needed. Depending on site conditions, it may be necessary to rrigate, fertilize, overseed, or re-establish plantings in order to provide vegetation for adequate erosion control

Suggested rates for temporary seedings (other approved species may be substituted):

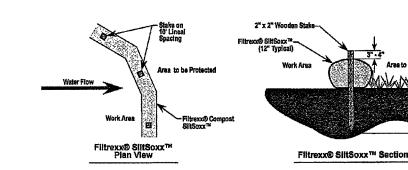
		Seeding Rate		
Seeding Dates	Seed Mix	Per Acre	lbs./1000ft²	
March 1 to August 15	Oats Tall Fescue Annual Ryegrass	4 Bushel 40 lbs 40 lbs	3 1 1	
August 16 to November 1	Rye Tall Fescue Annual Ryegrass	2 Bushel 40 lbs 40 lbs	3 1 1	
November 1 to Spring Seeding	Use mulch onl	y, sodding practices, or dor	mant seeding	

1. Mulching shall be applied after seedbeds have been prepared and seed has been applied. It can also be used as a stand-alone practice to provide a temporary cover over idle bare areas. Erosion control matting shall be used in lieu of mulch cover in areas that exhibit velocities higher than 3.5

4. Straw mulch shall be anchored immediately to minimize loss by wind or runoff. Acceptable means of anchoring include disking, crimping, netting,

synthetic binders, and wood cellulose fiber.

Filtrexx® SiltSoxx™ Details



Slope Percent	8 in (200 mm) SiitSoxx ^{tu}	12 in (300 mm) SiltSoxx tm		24 in (600mm) SiltSoxx ^{tox}	32 in (800mm) SiltSoxx tm	
:	7 in (175 mm)**	10 in (250 mm) **	15 in (375 mm) **	20 in (500 mm) **	26 in (650 mm) **	
2 (or less)	600 (180)	750 (225)	1000 (300)	1300 (400)	's 1650 (500)	
5	400 (120)	500 (150)	550 (165)	650 (200)	750 (225)	
10	200 (60)	250 (75)	300 (90)	400 (120)	500 (150)	
15	140 (40)	170 (50)	200 (60)	325 (100)	450 (140)	
20	100 (30)	125 (38)	140 (42)	260 (80)	400 (120)	
25	80 (24)	100 (30)	110 (33)	200 (60)	275 (85)	
30	60 (18)	75 (23)	90 (27)	130 (40)	200 (60)	
35	60 (18)	75 (23)	80 (24)	115 (35)	150 (45)	
40	60 (18)	75 (23)	80 (24)	100 (30)	125 (38)	
45	40 (12)	50 (15)	60 (18)	80 (24)	100 (30)	
50	40 (12)	50 (15)	55 (17)	65 (20)	75 (23)	

receiving length of sediment control device, 1 in/24 hr (25 mm/24 hr) rain event. **Effective height of Silt Soxx™ after installation and with

Guidelines for Permanent Seeding

1. Disturbed areas must be permanently stabilized as specified in the following table:

Area requiring permanent stabilization:	Time frame to apply erosion controls:
Any area that will lie dormant for one year or more.	Within seven (7) days of the most recent disturbance.
Any area within fifty (50) feet of a surface water of the state and at final grade.	Within two (2) days of reaching final grade.
Any area at final grade.	Within seven (7) days of reaching final grade within that area.

2. Reduce soil compaction as much as possible so as to promote infiltration, which will aid in seed germination and long-term survivability. Topsoil shall 3. Lime and fertilizer requirements should be determined through soil testing. If either is necessary, they should be worked into the soil to a depth of 4. Optimal seeding dates are from March 1 to May 31 and Aug 1 to September 30. However, with the use of mulch and irrigation, germination may be

during or immediately after seeding.

5. Seedings shall not be planted between October 1 and November 20. Although germination of seed is likely, it will likely not survive the winter. 6. To complete a dormant seeding, increase the seeding rates by 50% and only apply them after November 20 and before March 15. Seedbed preparation can take place any time prior to seeding.

7. Seeded areas shall be inspected for failure and vegetation shall be re-established as needed. Depending on site conditions, it may be necessary to

made at any time during the growing season. Application of permanent seeding and dormant seeding shall include mulch, which shall be applied

irrigate, fertilize, overseed, or re-establish plantings in order to provide permanent vegetation for adequate erosion control.

8. Maintenance fertilization rates shall be established by soil test recommendations.

Suggested rates for permanent seedings (other approved species may be substituted):

	Seeding Rate		
Seed Mix	lbs./Acre	lbs./1000ft²	
(General Use) Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20 - 40 10 - 20 20 - 40	½ - 1 ¼ - ½ ½ - 1	
(Lawns - Shaded areas) Kentucky Bluegrass Creeping Red Fescue	100-120 100-120	2 1½	
(Lawns) Kentucky Bluegrass Perennial Ryegrass	100-120 100-120	2 2	
(Steep Banks or Cut Slopes) Tall Fescue	40-50	. 1-1 1/4	
(Road Ditches and Swales) Tall Fescue	40-50	1-1 1/4	

Stabilized Construction Entrance

1. ODOT #2 (1.5 - 2.5 inch) stone or recycled concrete equivalent shall be placed at a minimum 6-inch thickness for light duty use or at least 10-inch thickness for heavy-duty use.

2. The entrance shall be as long as required to stabilize high traffic areas (30-ft minimum on a single residential lot; 70-ft minimum elsewhere). The entrance shall be at least 14 feet wide, but not less than

3. A geotextile shall be placed over the entire area prior to placing stone. It shall be composed of strong ot-proof polymeric fibers and meet the following specifications

Minimum tensile strength	200 lbs
Minimum puncture strength	80psi
Minimum tear strength	50 lbs
Minimum burst strength	320 lbs
Minimum elongation	20 %
Equivalent opening size	EOS < 0.6mm
Permeability	1 x 10-3 cm/sec

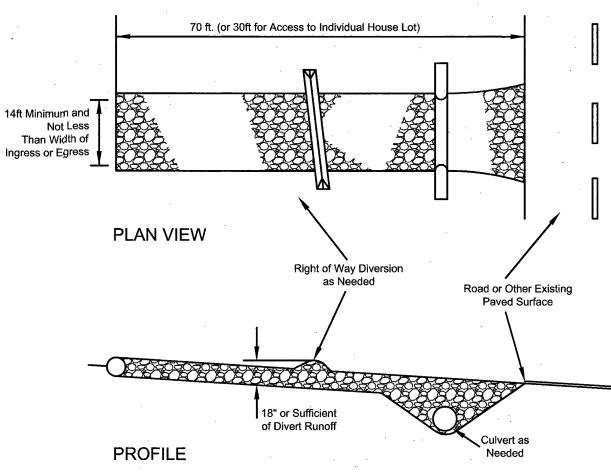
flowing across the entrance out onto paved surfaces. 5. If needed, a water bar shall be constructed to prevent surface water from flowing along the length of the

6. Top dress with additional stone as site conditions demand.

7. Remove mud tracked onto public streets immediately via scraping or sweeping. 8. Ensure the ends of the temporary culvert pipe (if utilized) are not blocked and that the pipe is free of

10.Pull out all construction entrance material and properly dispose of off-site. Stone can be blended into the surrounding landscape as site conditions allow

11. Re-grade the area as necessary and establish vegetation on any resulting disturbed areas.



Concrete Washout Areas

and removal procedures.

- 1. Concrete wash water shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance and washout pits shall be situated a minimum of fifty (50) feet from them.
- 2. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged. 3. Ensure a stable path is provided for concrete trucks to reach the washout area.
- 4. A highly visible sign that reads "Concrete Washout Area" shall be erected adjacent to the washout pit. 5. Surface runoff generated from upslope areas shall be diverted away from below-grade washout pits so
- as not to flow into them. 6. A single centralized washout area may be utilized for multiple sublots.
- 7. The washout pit must be inspected daily and after heavy rains to check for leaks, identify if any plastic linings and sidewalls have been damaged by construction activities, and determine whether the pit has
- been filled to over 75% capacity. 8. If 75% of the original volume of the washout pit is filled, wash water should be vacuumed off or allowed to evaporate to avoid overflows. Then when the remaining material has hardened, it must be removed and properly disposed of. Once the hardened concrete is removed, the liner will need to be replaced if
- 9. Before heavy rains, the washout container's liquid level should be lowered, or the container should be covered to avoid an overflow during the rain event. Removal:

10. Once the washout pit is no longer needed, ensure all washout material has completely hardened, then

torn. A new pit must be constructed if the original structure is no longer suitable.

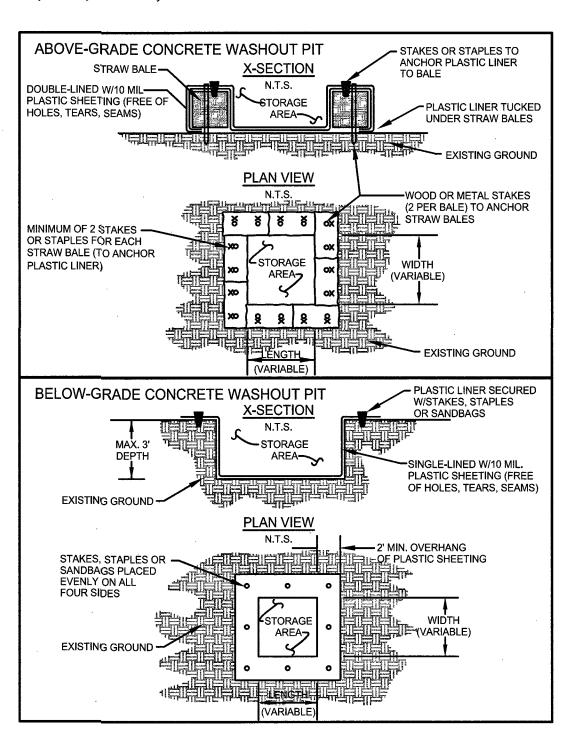
remove and properly dispose of all materials. If straw bales were used, they can be spread as mulch. 11. Prefabricated containers specifically designed for concrete washout collection may be used subject to

prior approval by the Engineer. Follow the manufacturer's suggestions for installation, maintenance

Sizing of Concrete Washout Pits

Below-g	rade (3-ft de	epth)	Above-ç	ırade (2-ft de	epth)
# of concrete trucks expected o be washed out on site*	Width (ft)	Length (ft)	# of concrete trucks expected to be washed out on site*	Width (ft)	Length (ft)
2-3	3	3	2	3	3
4-5	4	4	3-4	4	4
6-7		-	5-6	5	5
0-1	5	5	7-8	6	6
8-10	6	6	9-11	7	7
11-14	7	7	12-15	8	8

*For small projects using a maximum of only one truckload of concrete or utilizing on-site mixing, rinsing of equipment may take place on the lot without a pit, provided it can be done a minimum of fifty (50) feet away from any water conveyances.



Yard Drain Inlet Protection

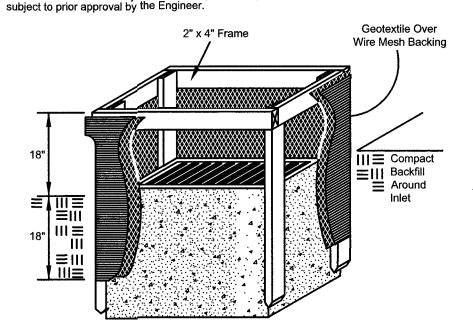
- Construct prior to upslope land disturbance. Excavate around the inlet to a depth of 18-inches
- Construct wooden frame from 2-inch x 4-inch lumber. Drive posts 1-foot into the ground at each corner directly against the concrete box and assemble the top frame with an overlap joint shown below. The top frame shall be set at an elevation that does not
- cause ponded water to backup into unwanted areas. The wire mesh and geotextile shall be tightly stretched and fastened to the frame.
- The geotextile shall overlap across one side of the inlet so the ends of the cloth are not
- fastened to the same post.
 6. Backfill shall be placed in the 18-inch trench around the inlet in compacted 6-inch layers until the elevation of the top of the grate is reached.

- 7. Remove accumulated sediment when it reaches one-half the height of the practice. The removed sediment must be stabilized and should not be placed where it could eventually be conveyed back to the inlet via surface runoff.
- Replace and properly dispose of damaged silt fence material.

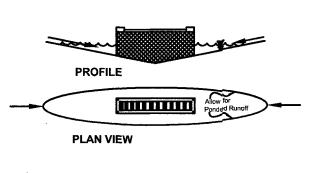
 Areas where surface flow has cut under the silt fence material within the trench shall be re-compacted with appropriate material (i.e. high clay content).

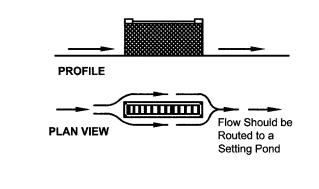
10. Pull out all silt fence material and stakes and properly dispose of off-site. 1. Re-grade area where sediment has accumulated as necessary and establish vegetation on any resulting disturbed areas.

Alternative manufactured yard drain inlet protection products are available and can be used,



Correct Application - Runoff Ponds Around Inlet Incorrect Application - Runoff bypasses inlet





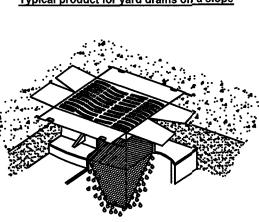
Inlet Protection for Curb Drains & Yard Drains Situated on a Slope

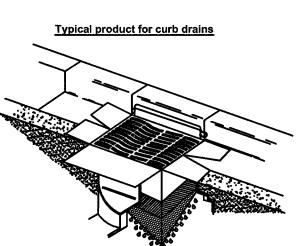
- 1. Remove the grate from the catch basin. 2. Insert the filtration sack into opening of catch basin. Some products require the filtration sack be slipped 3. Reinsert grate into catch basin while ensuring all necessary support straps remain outside the catch basin on top of the surface. If necessary, insert rebar through the support straps to provide support and ensure the filtration sack does not fall into catch basin as it fills with sediment.
- 4. The filtration sack must be emptied when it is 1/3rd full of sediment and debris. Sacks are typically manufactured with lifting straps and dumping straps.
- 5. To empty the sack, remove the grate, lift the sack out of the catch basin via the lifting straps and haul it to an appropriate area. Turn it inside out with the dumping straps provided.
 6. The filtration sack must be replaced if it is torn, otherwise the same sack can be used multiple times.
- 7. Pull out all inlet protection material and properly dispose of off-site.
- 8. Re-grade area where accumulated sediment has been placed as necessary and establish vegetation on The following diagrams provide a general idea of how to install and maintain a variety of manufactured storm

or for yard drain inlets. Manufacturer's specifications for the product of choice should be followed.

drain inlet protection practices. Be sure to implement filtration sacks that are appropriate for either curb inlets

Typical product for yard drains on a slope

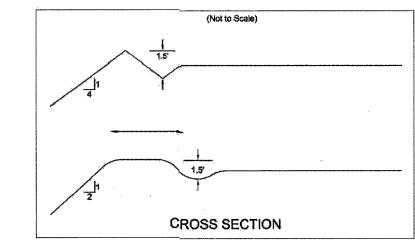




CROSS SECTION

Temporary Diversion

Specifications



1. Drainage area should not exceed 10 acres. Larger areas 4. The grade may be variable depending upon the topograrequire a more extensive design.

2. The channel cross section may be parabolic or trapezoidal. Disk the base of the dike before placing fill. Build the dike 10% higher than designed for settlement. The dike shall be compacted by traversing with tracked earth-mov-

3. The minimum cross section of the levee or dike will be as follows: (Minimum design freeboard shall be ().3 foot.) Where construction traffic will cross, the top width may be made wider and the side slopes flatter than specified Table 5.3:2

Dike Top Width (ft.)

phy, but must have a positive drainage to the outlet and e stabilized to be non-erosive.



designed waterway, grade stabilization structure, or sediment trapping facility.

6. Diversions shall be seeded and mulched in accordance with the requirements in practice standards TEMPORARY SEEDING (or PERMANENT SEEDING) and MULCHING as soon as they are constructed or other suitable stabilization in order to preserve dike height and reduce

CHAPTER 5 Temporary Runoff Control

Rock Check Dam

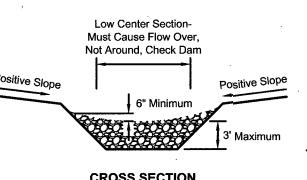
- 1. Constructed of 4 to 8-inch diameter stone, placed across the entire width of the channel. ODOT Type D stone is acceptable but should be underlain with a gravel filter consisting of ODOT No. 3 or 4 or a suitable filter fabric.
- 2. The base of the check dam shall be entrenched approximately 6-inches.
- 3. Maximum height of check dam shall not exceed 3-feet
- 4. The midpoint of the rock check dam shall be a minimum of 6-inches lower than the sides in order to direct water across the center and away from the channel sides
- 5. Spacing between dams shall be as shown on the plan. 6. When check dams are expected to be in use for an extended period of time, a Splash Apron made of stone shall be
- constructed immediately downstream of the check dam to prevent flows from undercutting the structure. The apron should be 6-inches thick and its length two times the height of the dam. 7. Side slopes shall be a minimum of 2:1.

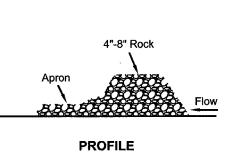
Maintenance:

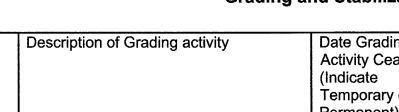
- 8. Maintain required parabolic shape and minimum height per the site's approved plan. Repair as necessary.
- 9. Ensure that flow is passing over the center of the check dam. If flow displaces stone, replace as necessary.
- 10. Ensure that erosion is not occurring at the downstream toe or alongside the check dam. If erosion is occurring, properly repair eroded areas. Decrease spacing of check dams by adding additional structures.

11. Sediment shall be removed from behind the check dam once it accumulates to one-half the original height of the

- 12. The time at which check dams can be removed is dependent upon stabilization techniques (refer to the plan). In conveyance channels that will not be mowed, the check dams can be left in place. Otherwise, stone can be blended into the surrounding landscape as site conditions allow.
- 13. Remove any accumulated sediments from the conveyance channel
- 14. Re-grade areas as necessary where accumulated sediments have been disposed of and where check dams were located. Establish vegetation on any resulting disturbed areas.







Grading and Stabilization Activities Log

Grading Activity Initiated	Description of Grading activity	Activity Ceased (Indicate Temporary or Permanent)	Stabilization Measures are Inititiated	and Location
		,		
			,	,

Date Grading Date When Description of Stabilization Measure

Consultant Job Number:

Developer Job Number

Development Partners

5301 Grant Avenue

Cleveland, OH 44129 Phone: (216)341-120

26031.B CENTER RIDGE R WESTLAKE, OHIO 44145

TELEPHONE: 440.835.395

FACSIMILE: 440.835.4042 Miderto Odscarchitects.com

CHAGRIN VALLEY

ENGINEERING, LTD.

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CITY COMMENT RESPONSE

ROPE

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Aug 19, 2019

Guidelines for Mulching feet/second. 2. Straw mulch shall be unrotted and applied uniformly at 2 tons/Ac or 90-lbs/1000 ft² (2-3 bales). 3. Wood chips shall be applied uniformly at a rate of 6 tons/Ac. 5. Mulch shall be re-applied in areas where it has been displaced by surface flow and/or wind.

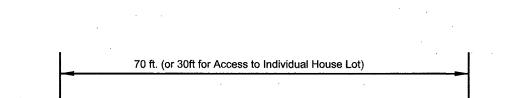
- the full width. at locations where ingress or egress occur.

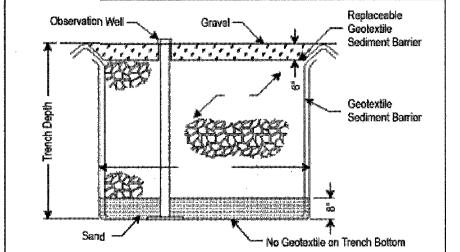
•	
Minimum tensile strength	200 lbs
Minimum puncture strength	80psi
Minimum tear strength	50 lbs
Minimum burst strength	320 lbs
Minimum elongation	20 %
Equivalent opening size	FOS < 0.6mm

- 4. If needed, a pipe or culvert shall be constructed under the entrance to prevent surface water from

entrance out onto paved surfaces.

9. The entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent





1. SEDIMENT SHALL BE PREVENTED FROM ENTERING THE 4. Bottom Sand Filter - The bottom of the trench shall be INFILTRATION TRENCH. Sediment clogging and sealing off the permeable soil is the most common cause of infiltration trench failure. Runoff from the construction site shall NOT be allowed to flow to the trench until construction is complete and upslope areas have been stabilized. If storm drains enter the infiltration trench directly and cannot be

remouted, they shall be sealed with a masonry plug until

all contributing drainage areas are stabilized. 2. The infiltration trench design shall include a system for removing sediment from stormwater before it enters the infiltration structure. However, this system shall NOT be used to control sediment during construction. 3. Trench excavation and backfilling of sand and rock shall

be done when the soil moisture is low enough to allow the

occur on wet soil to prevent compaction and maintain soil

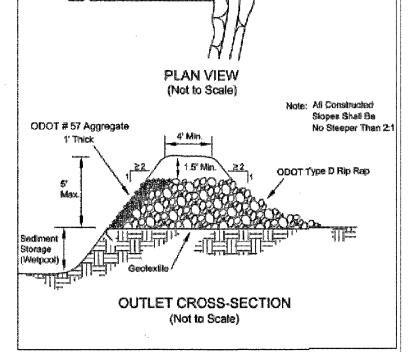
soil to crack or fracture. No trench excavation or fill shall

covered with an 8-inch layer of clean sand. The sand layer shall be placed the same day excavation is Observation Well - A 4-inch diameter, rigid perforated ver-

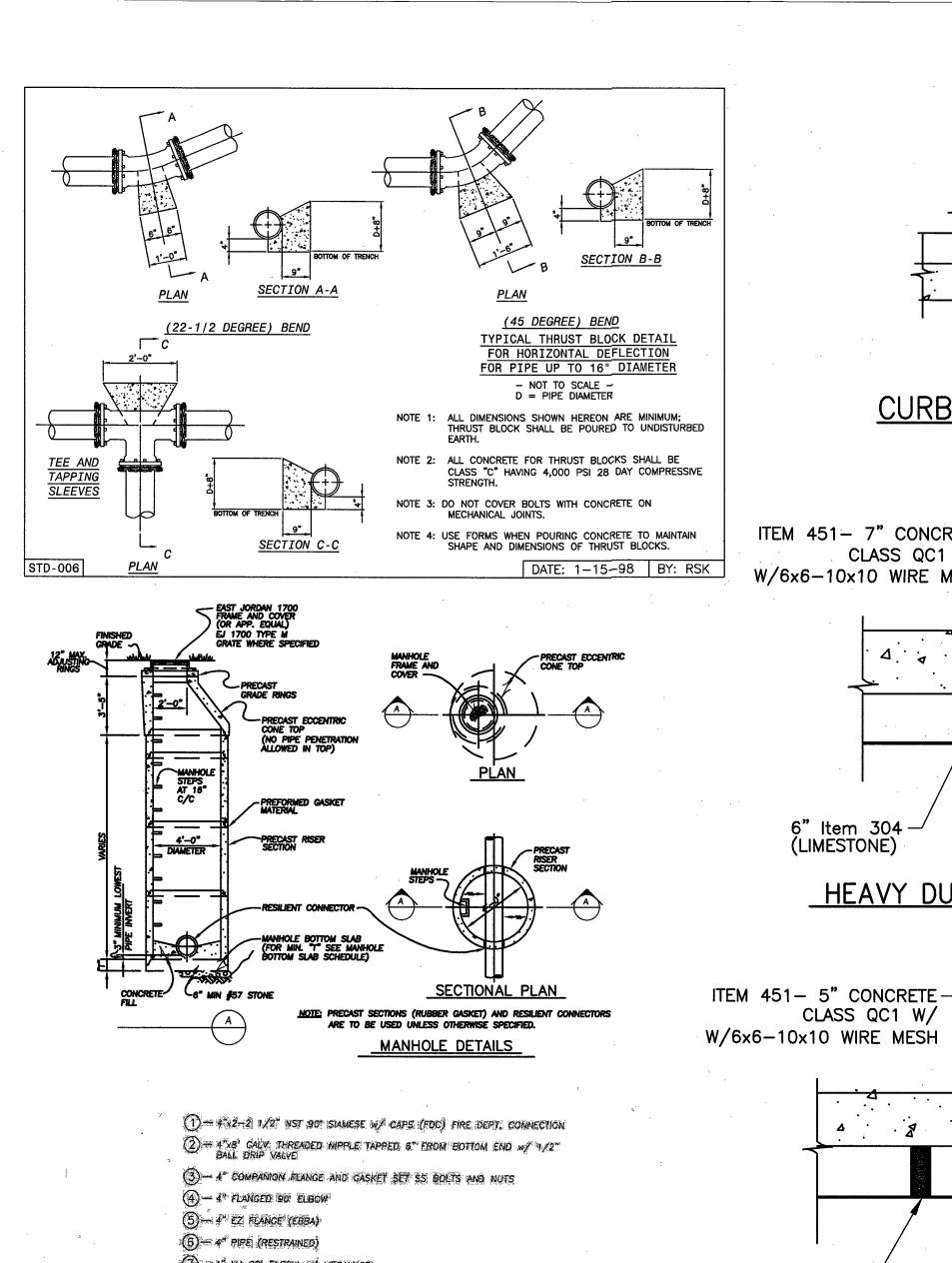
tical pipe shall be installed in the trench. The vertical pipe shall be securely and permanently attached to a base to prevent upward movement. The top of the vertical pipe shall have a secure removable cap. The original depth shall be permanently marked on the top of the observa-6. Geotextile - The sides and top of the trench shall be lined

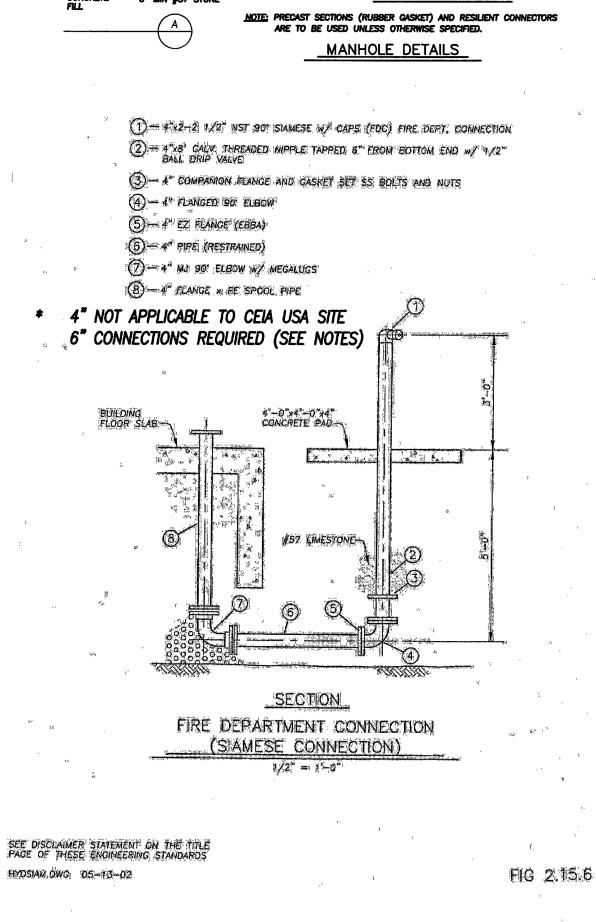
with geotextile. The bottom of the trench shall NOT be

covered with geotextile 7. Rock - Rock fill shall be clean, poorly-graded, uniform size crushed washed rock. Well-graded rock has less void space available for runoff storage and shall not be



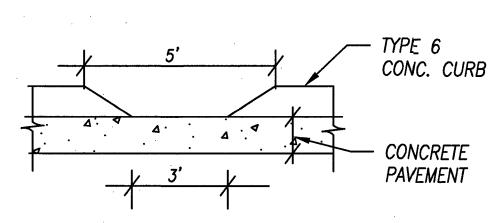
2:1 Side Slopes



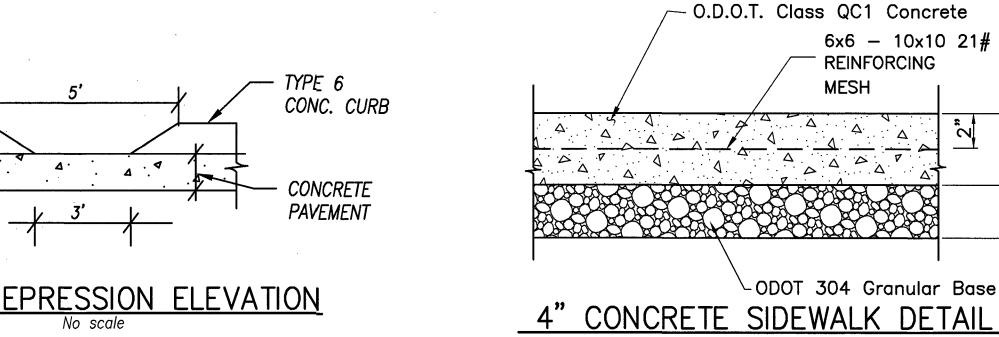


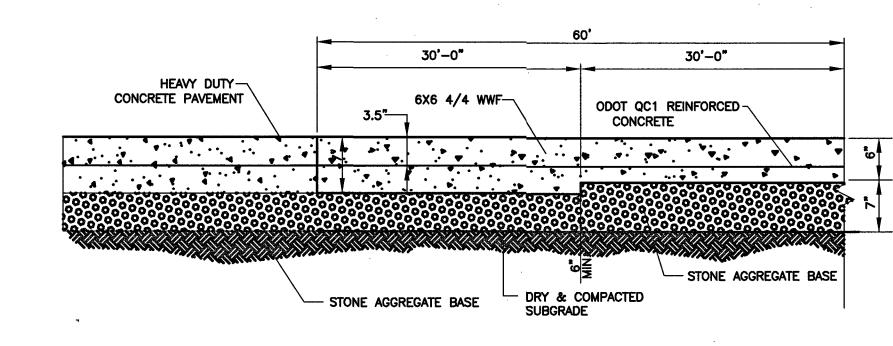


- 1. FIRE DEPARTMENT CONNECTION LEAD-IN AND RISER PIPE FOR BUILDING SPRINKLER SYSTEM MUST BOTH BE 6" TO PROVIDE ADEQUATE FIRE SUPPRESSION WATER SUPPLY.
- 2. FDC MUST BE 5" STORZ THREAD ON A 30 DEGREE ELBOW.
- 3. FDC RISER PIPES SHALL BE PAINTED RED IN COLOR.
- 4. FIRE HYDRANTS AND FDC MUST MEET CITY OF HUDSON NOZZLE THREAD SPECIFICATIONS.
- 5. ALL WATERLINES SHALL BE TESTED PER THE CITY OF HUDSON STANDARDS.
- 6. ALL FIRE LINES SHALL BE INSPECTED BY THE SUMMIT COUNTY DEPT. OF BUILDING STANDARDS AND THE HUDSON FIRE DEPARTMENT FROM THE EXISTING UTILITY TO THE BUILDING.

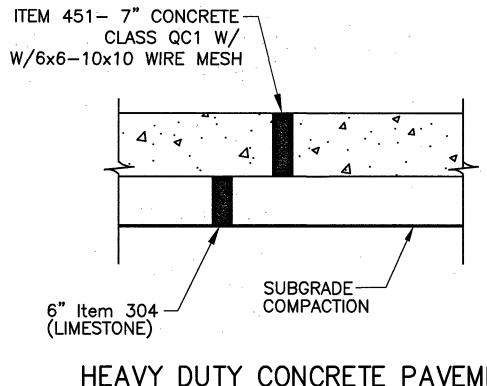


CURB DEPRESSION ELEVATION



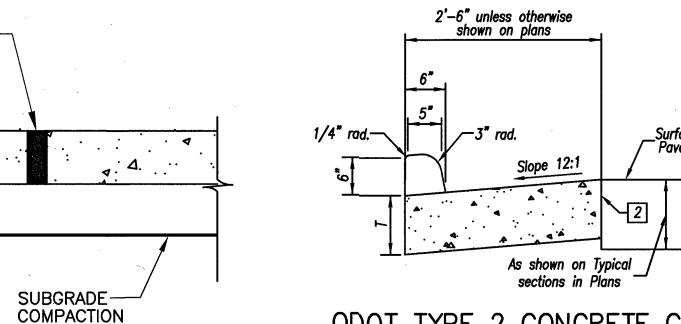


EXTERIOR DOCK SLAB

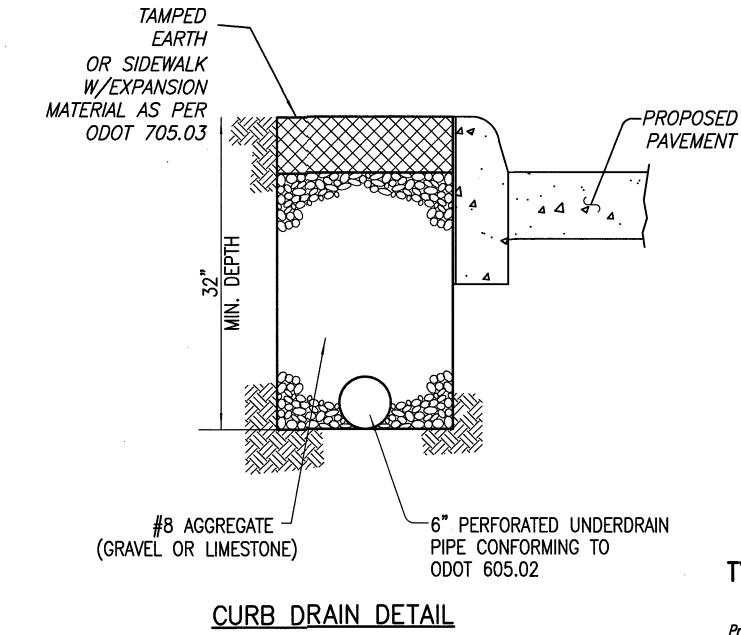


6" Item 304 - (LIMESTONE)

HEAVY DUTY CONCRETE PAVEMENT



ODOT TYPE 2 CONCRETE CURB

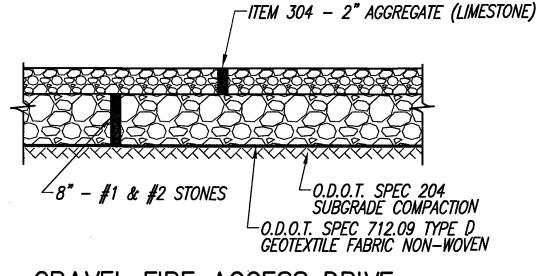


No Scale

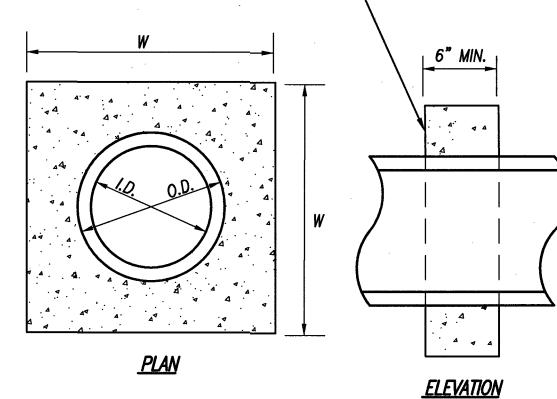
9" MINIMUM 12" MAX. 24" DIA. & LESS 15" MAX. 27" to 66" DIA 24" MAX. 72" DIA & OVER PREMIUM (UNDER PAVED SURFACE) OR REGULAR BACKFILL (GRASS AREA),

TYPE I (STORM & SANITARY OUTSIDE RIGHT-OF-WAY) TYPICAL TRENCH DETAIL

Premium Backfill shall consist of coarse interlocking aggregate 0.D.O.T. 304 Limestone. Slag is not allowed. Pipe Cover shall consist of coarse interlocking aggregate no. 57 Crushed Limestone. Bedding shall consist of coarse interlocking aggregate no. 57.



GRAVEL FIRE ACCESS DRIVE



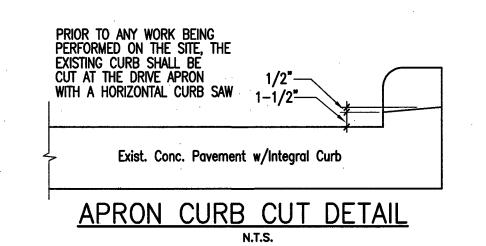
ANTI-SEEP COLLAR NO SCALE

ITEM 451- 8" REINFORCED ODOT QC MS CONCRETE PAVEMENT-(58# WIRE FABRIC IN DRIVE APRON) ITEM 304- 6" AGGREGATE (LIMESTONE). INSTALL ADDITIONAL STONE BELOW IF SUBGRADE IS POOR. SUBGRADE-

LIGHT DUTY CONCRETE PAVEMENT

CONCRETE APRON

COMPACTION



-TROWELED JOINT -CONCRETE SIDEWALK /_{1/4" PER FOOT MAX} #4 HOOK BOLTS @ 24" O/C NOTE: CURB EXPANSION JOINTS TO MATCH

INTEGRAL CURB & WALK DETAIL No Scale

SIDEWALK EXPANSION JOINT SPACING

THE FOLLOWING ODOT STANDARD CONSTRUCTION DRAWINGS ARE TO BE INCLUDED AS PART OF THE DRAWING SET FOR THIS PROJECT:

1. BP-7.1 "CURB RAMPS"

CONCRETE C.Y.

WxW (FT.) 3x3 4x4 5x5

0.15 | 0.28 | 0.45 NA 0.24 0.40

NA NA 0.33

DIMENSIONS OF COLLAR

DIAMETER (I.D.)

- 2. CB-1.1 "CATCH BASINS NO'S. 2-2A & B"
- 3. CB-2.1 "CATCH BASINS NO'S. 2-3 & 2-4"
- 4. HW-1.1 "FULL-HEIGHT HEADWALLS"

4000 PSI COMPRESSIVE -STRENGTH CONCRETE

MICHAEL

PROP

 \approx

PREMIER

Development Partners

5301 Grant Avenue Cleveland, OH 44125 Phone: (216)341-1200

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TELEPHONE: 440.835.395. FACSIMILE: 440.835.404; Mithroodscarchitects.com

CVE-

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ENGINEERING, LTD.

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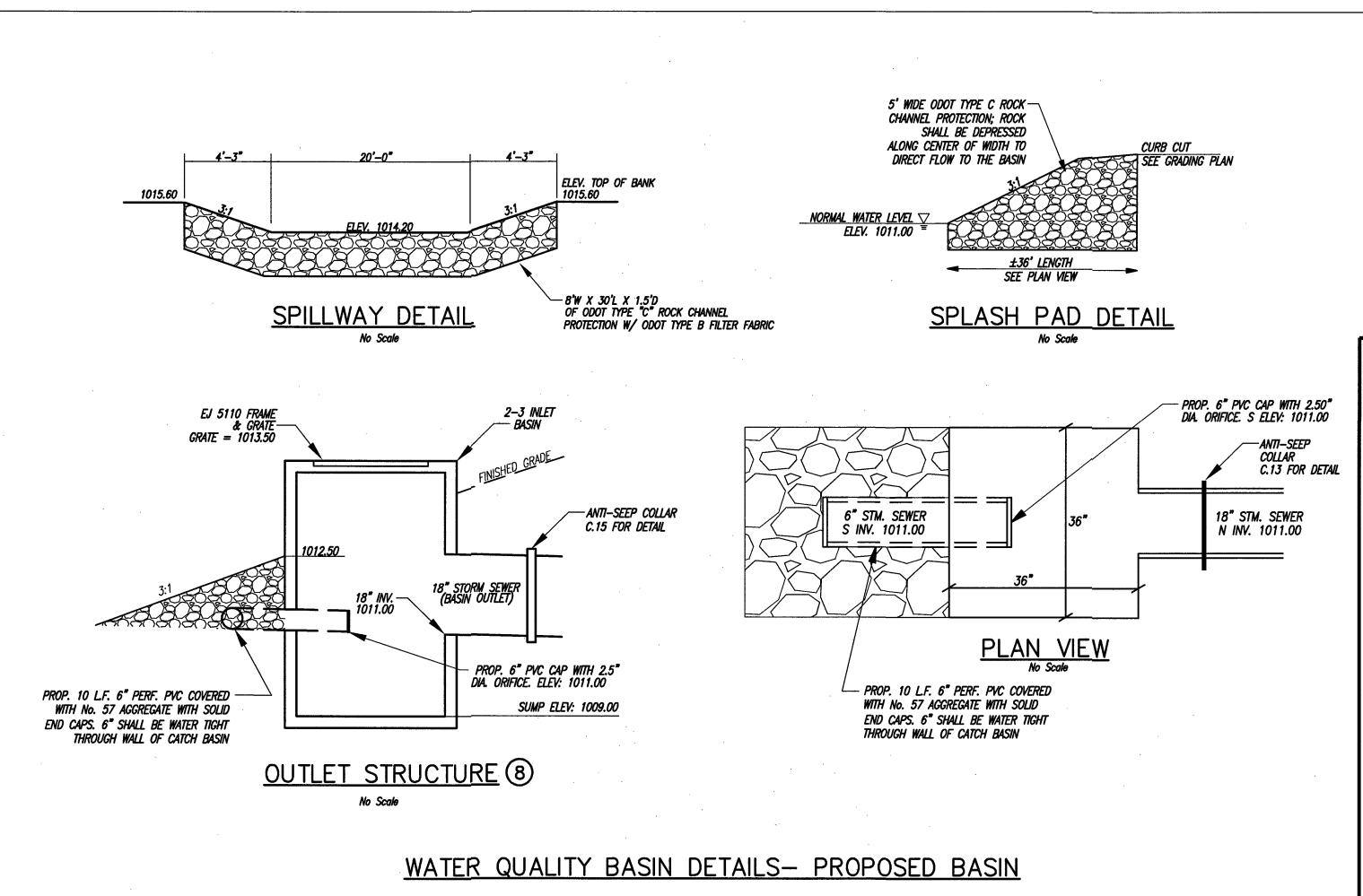
CITY COMMENT RESPONSE

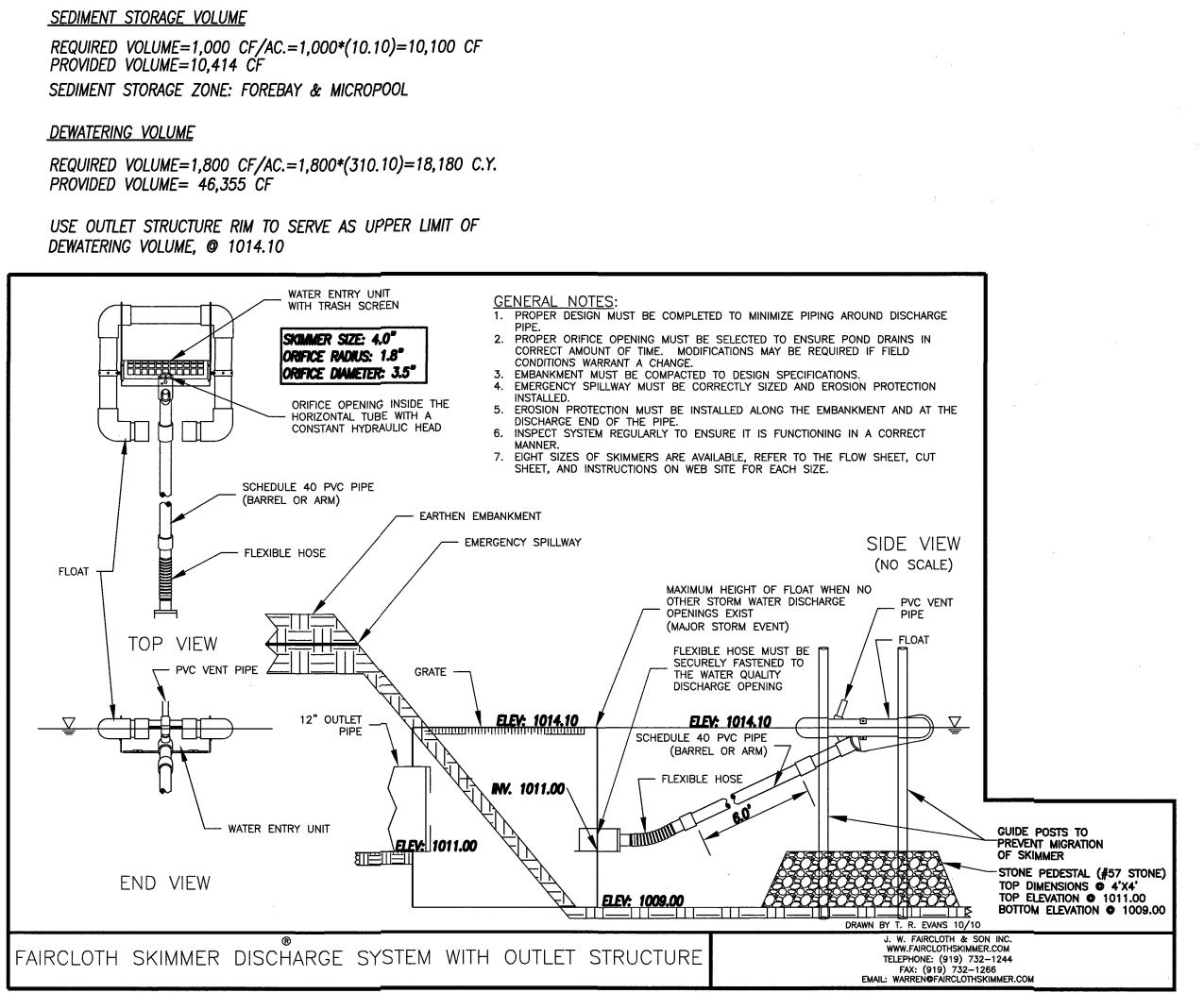
Aug 19, 2019

Consultant Job Number:

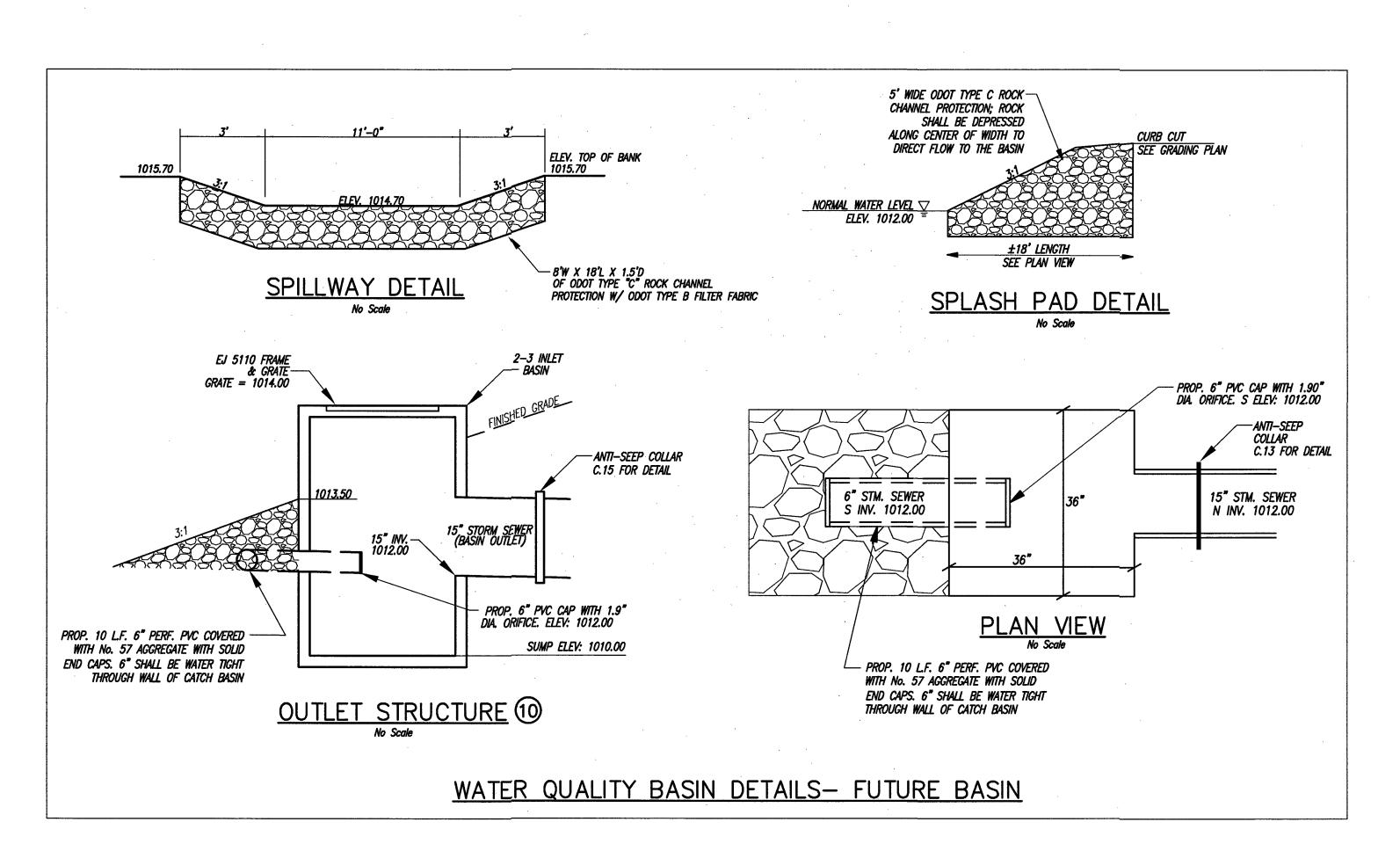
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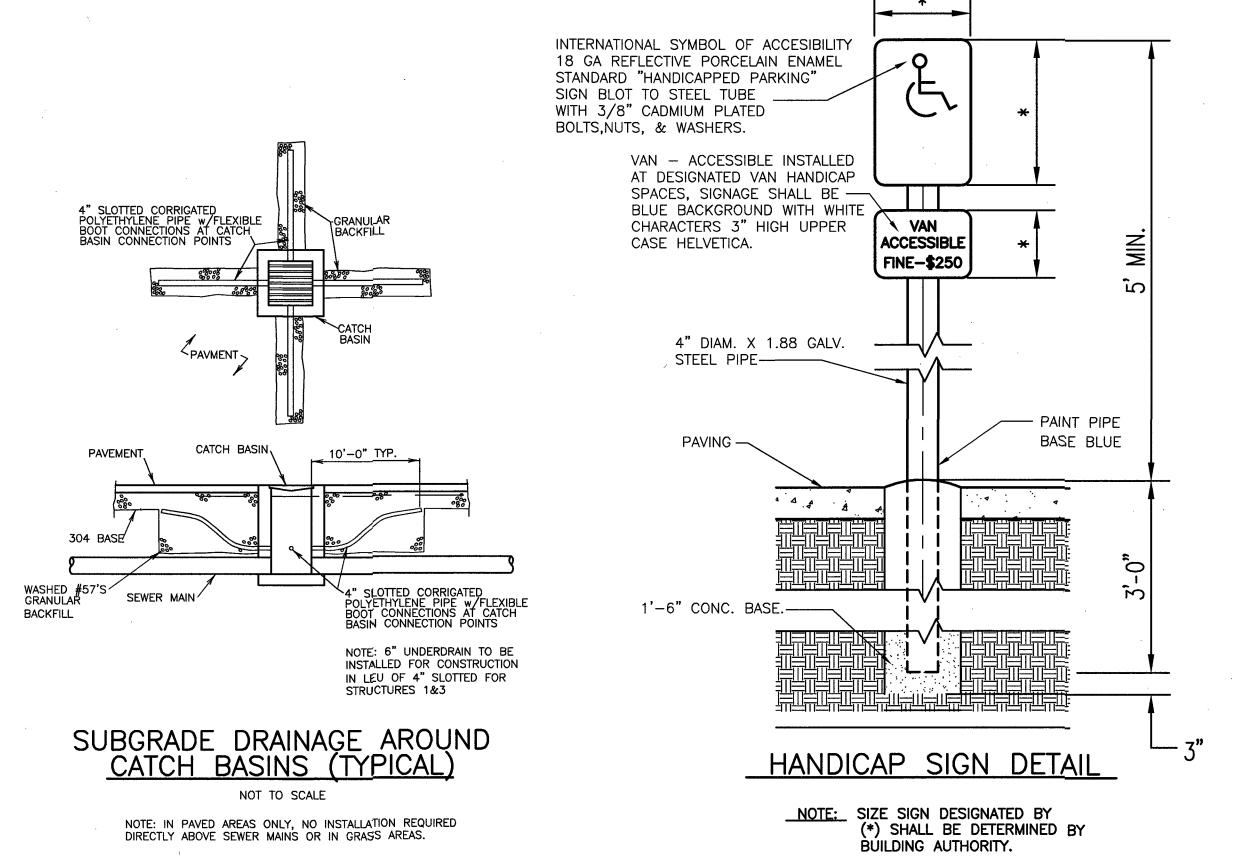
Drawing Number:





SEDIMENT BASIN CALCULATIONS









26031.B CENTER RIDGE R WESTLAKE, OHIO 44145 TELEPHONE: 440.835.395.
FACSIMILE: 440.835.4042
Miller to Odscarchitects.com

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FOR PERMIT July 18, 2019 CITY COMMENT RESPONSE Aug 19, 2019

TRIAL SITE NG PARKWAY OHIO

DETAILS

STANDARD

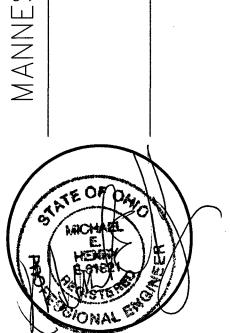
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BENEDE

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Consultant Job Number: 17.056

EXHIBIT A GENERAL CONSTRUCTION NOTES

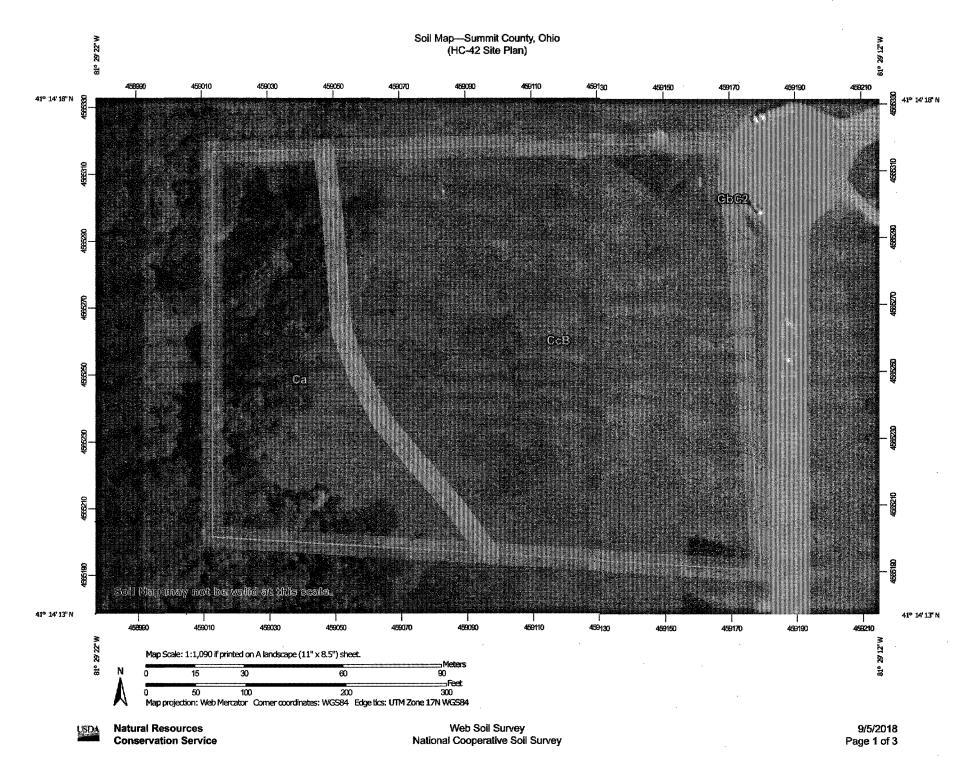
- CONSTRUCTION OF THE SITE WORK AND UTILITIES SHALL BE GOVERNED BY THE CITY OF HUDSON'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED FOR THE PROJECT.
- 3. THE CONTRACTOR MUST ALERT THE OHIO UTILITY PROTECTION SERVICES AT 1-800-362-2764 AT LEAST 48 HOURS BEFORE ANY EXCAVATION IS TO BEGIN.
- ALL EXISTING APPURTENANCES (UTILITY POLES, VALVES, HYDRANTS, MANHOLES, ETC.) ARE TO BE MAINTAINED BY THE CONTRACTOR UNLESS OTHERWISE SHOWN ON THE PLANS.
- 5. THE DESIGN ENGINEER CERTIFIES THAT ALL UTILITIES ARE SHOWN AS THEY APPEAR ON EXISTING RECORDS OR FIELD LOCATED.
- ALL KNOWN ABOVE AND UNDERGROUND SERVICES HAVE BEEN NOTED ON THE DRAWINGS. THE CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR ANY SERVICES DAMAGED DURING THE CONSTRUCTION OF THE PROJECT WHETHER SHOWN OR NOT ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE SERVICE AS SOON AS POSSIBLE AT THE CONTRACTOR'S OWN EXPENSE.
- 7. VIDEO TAPING OF PROJECT SHALL BE DELIVERED AND ACCEPTED BY THE CITY OF HUDSON ENGINEERING DEPARTMENT A MINIMUM OF 14 CALENDAR DAYS PRIOR TO START OF CONSTRUCTION ACTIVITIES.
- 8. NOTIFY THE CITY OF HUDSON ENGINEERING DEPARTMENT A MINIMUM OF FORTY-EIGHT HOURS (2 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION.
- 9. A PRECONSTRUCTION MEETING SHALL BE SCHEDULED A MINIMUM OF 48 HOURS (2 WORKING DAYS) AFTER SUBMISSION OF A MINIMUM OF 6 APPROVED SETS OF PLANS AND ALL SHOP DRAWINGS APPLICABLE TO THE PROPOSED IMPROVEMENTS. A PRECONSTRUCTION MEETING MUST BE HELD PRIOR TO START OF ANY CONSTRUCTION.
- 10. THE LIMITS OF CLEARING AND GRADING SHALL BE FIELD STAKED AND LINED WITH ORANGE CONSTRUCTION FENCING 48 HOURS (2 WORKING DAYS) PRIOR TO THE PRECONSTRUCTION MEETING. AREAS BEYOND THE LIMITS OF CLEARING AND GRADING SHALL NOT BE DISTURBED INCLUDING THE STOCKPILE OF ANY MATERIALS OR CONSTRUCTION TRAFFIC.
- 11. ALL ROAD SURFACES, EASEMENTS, OR RIGHT-OF-WAY DISTURBED BY THE CONSTRUCTION OF ANY PART OF THESE IMPROVEMENTS ARE TO BE RESTORED ACCORDING TO THE CITY OF HUDSON "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION" AS DIRECTED BY THE CITY OF HUDSON AND/OR ITS ENGINEER.
- 12. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY OF HUDSON OR ITS REPRESENTATIVE IF SUSPECTED HAZARDOUS MATERIAL OR ANY OTHER MATERIAL THAT MAY CREATE A HEALTH RISK IS DISCOVERED ON SITE.
- See Disclaimer Statement on the title page of these Engineering Standards.
- A-1
- 13. ALL DISTURBED STORM SEWERS AND/OR APPURTENANCES, SIGNS, GUARD RAILING, MAIL AND/OR PAPER BOXES, DRIVE CULVERTS, FENCES, TREES, LANDSCAPING, OR OTHER ITEMS DISTURBED BY THE CONSTRUCTION SHALL BE RESTORED OR REPAIRED TO AT LEAST THE BEFORE-CONSTRUCTION CONDITION.
- 14. ANY DEFECTS DISCOVERED IN NEW CONSTRUCTION, WORKMANSHIP, EQUIPMENT OR MATERIALS SHALL BE REPAIRED, OR CORRECTED BY APPROVED METHODS AS DIRECTED BY THE CITY OF HUDSON.
- 15. NUCLEAR COMPACTION TESTING SHALL BE REQUIRED FOR ALL FILL AREAS OVER TWO FEET (2') IN DEPTH, AT 6" LIFTS PER ASTM A-1557, 95% MODIFIED.
- 16. APPROVAL BY THE CITY OF HUDSON ENGINEER CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO THE FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS OR SPECIFICATIONS.
- 17. DURING TAPPING OF EXISTING UTILITIES, ANY TRAFFIC CONTROL REQUESTED OR REQUIRED BY THE CITY OF HUDSON WILL BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE CITY.
- 18. COMPLIANCE WITH THE OCCUPATIONAL AND SAFETY ACT OF 1970 IS REQUIRED BY ALL CONTRACTORS ON THIS PROJECT.
- 19. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
- 20. ALL DISTURBED AREAS SHALL RECEIVE 4" OF TOPSOIL AND BE SEEDED AND MULCHED AS PER SECTION 9 LANDSCAPING AND STREET TREES OF THE CITY'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
- 21. IF MUD, SOIL, OR OTHER DEBRIS IS DEPOSITED ON ADJACENT STREETS, ROADS, OR OTHER PROPERTY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF SUCH AS DIRECTED BY THE CITY OF HUDSON OR ITS ENGINEER AT THE END OF EACH WORK DAY, OR AS REQUIRED DURING THE WORK DAY.
- 22. ALL PROPOSED SLOPES 3:1 OR STEEPER AND ALL EARTHEN DRAINAGE WAYS SHALL RECEIVE JUTE OR EXCELSIOR MATTING AS PER ODOT 667 OR 668.
- 23. ALL STORM SEWERS WITHIN PUBLIC RIGHTS-OF-WAY AND CITY OF HUDSON EASEMENTS SHALL BE PER SECTION 4 STORM COLLECTION OF THE CITY'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION
- 24. ALL PIPES SHALL BE PLACED OVER 4" OF BEDDING. BEDDING MATERIAL SHALL BE AS SPECIFIED IN CITY'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION, FOR THE TYPE OF PIPE.
- 25. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROTECTING THE FLOW OF VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE JOB SITE. TRAFFIC CONTROL SHALL BE COORDINATED WITH THE CITY OF HUDSON POLICE DEPARTMENT.
- 26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PLANT TICKETS FOR ALL MATERIALS DELIVERED TO THE SITE. PLANT TICKETS MUST SHOW NET QUANTITY OF DELIVERED MATERIAL. MATERIAL DELIVERED OR PLACED WITHOUT PLANT TICKETS

- SHALL BE REMOVED AND PROPERLY DISPOSED AT THE EXPENSE OF THE CONTRACTOR.
- 27. ALL DELIVERED MATERIALS SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF HUDSON OR OTHER APPLICABLE AGENCIES. THE CITY OF HUDSON, OR ITS REPRESENTATIVE, RESERVES THE RIGHT TO REJECT ANY DELIVERED MATERIAL WHICH DOES NOT CONFORM TO THE APPLICABLE STANDARDS AND SPECIFICATIONS.
- 28. THE CITY OF HUDSON OR ITS REPRESENTATIVE, RESERVES, THE RIGHT TO HALT ALL CONSTRUCTION ACTIVITY FOR NONCONFORMANCE OF PLANS, SPECIFICATIONS AND OTHER APPLICABLE STANDARDS OR REGULATIONS.
- 29. ALL CHANGES TO APPROVED DRAWINGS AND/OR SPECIFICATIONS MUST BE REAPPROVED BY THE CITY OF HUDSON PRIOR TO CONSTRUCTION.
- 30. ALL PAVING MATERIAL MUST BE PROVIDED BY ODOT CERTIFIED SUPPLIER. WRITTEN PROOF SHALL BE REQUIRED UPON DELIVERY OF MATERIALS. THE CERTIFIED MIX DESIGN MUST BE SUBMITTED TO, AND APPROVED BY, THE CITY OF HUDSON PRIOR TO SCHEDULING A PRECONSTRUCTION MEETING.
- 31. CONTRACTOR/DEVELOPER SHALL PROVIDE ALL REQUIRED ROADWAY SIGNAGE AS PER ODOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES INCLUDING STREET IDENTIFICATION SIGNAGE PER CITY STANDARDS FOR ALL ASPECTS OF THE
- 32. ALL BONDS AND OR LETTERS OF CREDIT SHALL NOT BE RELEASED OR REDUCED AND NO WATER OR SANITARY SEWER CUSTOMERS CAN BE CONNECTED UNTIL ALL RECORD DRAWINGS HAVE BEEN SUBMITTED, REVIEWED AND APPROVED BY THE CITY OF HUDSON.
- 33. ALL WORK, EXCEPT SIDEWALKS, STREET TREES AND STREET LIGHTS, AS PART OF THESE PLANS SHALL BE COMPLETED, INCLUDING PUNCH LIST ITEMS AND DEFICIENCY WORK WITHIN 1 YEAR OF THE DATE OF APPROVAL BY THE CITY ENGINEER. SIDEWALKS, STREET TREES AND STREET LIGHTS SHALL BE COMPLETED WITHIN TWO YEARS OF THE DATE OF APPROVAL BY THE CITY ENGINEER.
- 34. FAILURE TO COMPLETE THE PROJECT IN ITS ENTIRETY AS APPROVED BY THE PLANNING COMMISSION, INCLUDING PUNCH LIST ITEMS, WILL RESULT IN THE CITY OF HUDSON HOLDING ALL FUTURE ZONING CERTIFICATES UNTIL ALL WORK HAS BEEN COMPLETED AND APPROVED.
- 5. MANUFACTURERS OR SUPPLIERS AFFIDAVIT FOR ALL CONSTRUCTION MATERIALS SHALL BE PROVIDED AS PER THE CITY'S "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION PRIOR TO THE START OF CONSTRUCTION.
- 36. THE CONSTRUCTION OF SANITARY SEWERS, WATER MAINS, LIFT STATIONS AND APPURTENANCES IS PROHIBITED UNTIL ALL PLANS HAVE BEEN APPROVED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY.
- 37. ALL SANITARY SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HUDSON "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
- 38. ALL SANITARY SEWERS CONSTRUCTED IN SUMMIT COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES (SC-DOES) SERVICE DISTRICTS AND SERVED BY SC-DOES SHALL COMPLY WITH SC-DOES REQUIREMENTS.
- 39. SHOP DRAWINGS FOR THE PROPOSED LIGHT FIXTURES SHALL BE ATTACHED TO THE APPROVED LIGHTING PLAN AND SUBMITTED WITH THE SIX SETS OF PLANS AS REQUIRED IN NOTE 8. THE LIGHT FIXTURES SHALL HAVE A RECESSED LAMP, FLAT LENSES AND OPTIONAL HOUSE SHIELDING AVAILABLE. THE CITY MAY REQUIRE HOUSE SHIELDS TO BE ADDED AND OTHER MODIFICATIONS AFTER CONSTRUCTION AT THE EXPENSE OF THE CONTRACTOR.
- 40. THE OWNER SHALL SUBMIT A NOTICE OF INTENT (N.O.I.) APPLICATION TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY (E.P.A.) AND OBTAIN AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (N.P.D.E.S.) OR THE LATEST FEDERAL, STATE AND/OR LOCAL REGULATIONS. THE OWNER SHALL SUBMIT A COPY OF THE N.P.D.E.S. PERMIT TO THE CITY OF HUDSON 48 HOURS (2 WORKING DAYS) PRIOR TO SCHEDULING A PRECONSTRUCTION MEETING.

EXHIBIT B WATERWORK NOTES CITY OF HUDSON WATER SERVICE AREA

- NOTE: THESE WATER WORK NOTES APPLY TO AREAS OF HUDSON THAT ARE TO BE SERVED WITH CITY OF HUDSON WATER.
- ALL WATER MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HUDSON "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION", LATEST EDITION.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY AND ALL AREAS ALONG THE ROUTE OF THE WATER MAIN. THIS WILL INCLUDE LAWNS, DRIVES, DITCHES, CULVERTS, LANDSCAPING, ETC, AND ANY OTHER AREAS DISTURBED DURING THE CONSTRUCTION PROCESS.
- 3. ALL TESTING SHALL BE IN ACCORDANCE WITH THE CITY OF HUDSON "ENGINEERING STANDARDS FOR INFRASTRUCTURE CONSTRUCTION" AND BE COORDINATED WITH THE CITY OF HUDSON. AWWA C-600 PRESSURE TESTING AND C-651 DISINFECTION BY CHLORINATION OF THE WATER MAIN WILL BE REQUIRED.
- 4. ALL PROPOSED TRENCHES LOCATED UNDER EXISTING OR PROPOSED PAVEMENT SHALL BE FILLED WITH LOW STRENGTH MORTAR. THE METHOD OF BACKFILLING AS DIRECTED BY THE ENGINEER, SHALL CONFORM TO ODOT 613 TYPE 1. SLAG OR FLY ASH IS NOT PERMITTED IN MIX. PAVEMENT INCLUDES, BUT IS NOT LIMITED TO, ROADWAY SURFACES, SIDEWALKS, BIKE WAYS, DRIVEWAYS, SHOULDERS, ETC. THE LIMITS OF THE LOW STRENGTH MORTAR SHALL INCLUDE 45° ANGLE OF REPOSE FROM ALL EDGES OF PAVEMENT.
- FIELD STAKING AND RECORD DRAWINGS SHALL BE PROVIDED TO THE CITY BY THE CONTRACTOR, AS SUPERVISED AND STAMPED BY A LICENSED PROFESSIONAL SURVEYOR. RECORD DRAWINGS (AS-BUILTS) IN BOTH REPRODUCIBLE AND DIGITAL FORMAT COMPATIBLE WITH THE CITY OF HUDSON STANDARDS TO BE SUBMITTED TO AND APPROVED BY THE CITY OF HUDSON PRIOR TO UTILITY SERVICE CONNECTIONS BEING MADE.
- A 4' MINIMUM HORIZONTAL CLEARANCE AND A 12" MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED FROM THE EDGE OF THE WATER MAIN PIPE TO THE EDGE OF THE STORM SEWER PIPE.
- 7. A 10' MINIMUM HORIZONTAL CLEARANCE AND AN 18" MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED FROM THE EDGE OF THE WATER MAIN PIPE TO THE EDGE OF ALL SANITARY SEWERS AND/OR FORCE MAIN PIPE.
- 8. ALL VALVES, FITTINGS, BENDS, TEES, ETC. SHALL HAVE MEGALUG JOINT RESTRAINTS BY EBBA IRON, INC.
- 9. ALL WATER MAINS WITHIN LOW STRENGTH MORTAR BACKFILL SHALL BE WRAPPED IN POLYETHYLENE AS PER AWWA C-105. OTHER AREAS TO BE WRAPPED IN POLYETHYLENE SHALL BE AS SHOWN ON THE DRAWINGS, AS DETERMINED FROM DIPRA REPORT OR AS REQUIRED BY THE CITY.
- 10. WHERE WATER MAINS CROSS SEWER TRENCHES, THE TRENCH IS TO BE BACKFILLED WITH ODOT 304 CRUSHED LIMESTONE.

- 11. TAPPING SLEEVES SHALL BE ROMAC TYPE, WRAP AROUND STAINLESS STEEL WITH # 316 STAINLESS STEEL BOLTS AND NUTS.
- 12. MANUFACTURER'S AFFIDAVIT: THE MANUFACTURER SHALL FURNISH AN AFFIDAVIT INDICATING THAT ALL PIPE, FITTINGS, VALVES, FIRE HYDRANTS, AND APPURTENANCES HAVE BEEN MANUFACTURED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE REFERENCED STANDARDS. A COPY OF EACH AFFIDAVIT, INDICATING THE PROJECT ON WHICH THE MATERIAL IS TO BE USED SHALL BE FORWARDED TO THE CITY OF HUDSON PRIOR TO THE PRECONSTRUCTION MEETING BEING SCHEDULED.
- 3. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS. THE CITY MAY GRANT SPECIAL PERMISSION FOR BUILDINGS FOUR STORIES AND HIGHER WITH A FIRE SUPPRESSION SYSTEM.
- 4. PROPOSED FACILITIES SHALL BE DESIGNED TO MAINTAIN A MINIMUM OF 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
- 5. ALL WATER MAINS GREATER THAN 12 INCH DIAMETER SHALL BE LAID TO GRADE WITH HIGH POINTS AND LOW POINTS HAVING ADEQUATE BLOW-OFFS VIA USE OF HYDRANTS
- 6. FOR ALL NON-RESIDENTIAL WATER SERVICE, A BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED PER CITY OF HUDSON AND OEPA STANDARDS AND REQUIREMENTS. FOR RESIDENTIAL WATER SERVICE A BACKFLOW PREVENTION DEVICE MAY BE REQUIRED FOR SWIMMING POOLS, IRRIGATION SYSTEMS, ETC. CONTACT THE CITY SERVICE/WATER DISTRIBUTION DEPARTMENT FOR THE REQUIREMENTS AND STANDARDS FOR BACKFLOW PREVENTION, THERMAL EXPANSION CONTROL, ETC.
- 17. ALL WATER METER SETTINGS MUST BE APPROVED BY THE CITY OF HUDSON. METERS SHALL BE MAGNETIC DRIVE, WITH A SCANCODE REMOTE READ, MUST READ IN CUBIC FEET, SET WITH VALVES BEFORE AND AFTER THE METER. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO PROVIDE AND RUN A REMOTE WATER METER WIRE FROM THE PROPOSED WATER METER LOCATION TO THE VICINITY OF THE PROPOSED ELECTRIC METER LOCATION. CONTACT THE CITY SERVICE/WATER DISTRIBUTION DEPARTMENT FOR THE COMPLETE STANDARDS AND REQUIREMENTS FOR WATER METERS, PRESSURE REGULATORS, ETC.
- 18. FOR NEW WATER MAIN CONSTRUCTION THE DRAWINGS SHALL HAVE BEEN REVIEWED BY THE OHIO EPA AND WRITTEN APPROVAL RECEIVED PRIOR TO THE START OF CONSTRUCTION.



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ca	Canadice silty clay loam	0.7	4.1%
СсВ	Caneadea silt loam, 2 to 6 percent slopes	11.5	71.5%
GbB	Geeburg silt loam, 2 to 6 percent slopes	2.2	13.5%
GbC2	Geeburg silt loam, 6 to 12 percent slopes, moderately eroded	0.5	3.1%
Ln	Lorain silty clay loam	0.5	3.1%
Wt	Willette muck	0.8	4.8%
Totals for Area of Interest		16.1	100.0%

PREMIER

Pevelopment Partners

5301 Grant Avenue
Cleveland, OH 44125
Phone: (216)341-1200



CVE-

TELEPHONE: 440.835.395

FACSIMILE: 440.835.4042 Millerto@dscarchitects.com

CHAGRIN VALLEY ENGINEERING, LTD. 22999 FORBES ROAD, SUITE B PHN: (440) 439-1999 CLEVELAND, OHIO 44146 FAX: (440) 439-1989

Date:
FOR PERMIT July 18, 2019
CITY COMMENT RESPONSE
Aug 19, 2019

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Approved By:
Approval Date

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RIAL SITE 3 PARKWAY DHIO

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Developer Job Number:

Consultant Job Number:

Drawing Number: