



**US Army Corps
of Engineers®**

Pittsburgh District

Planning and Environmental Branch
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222

Public Notice Date: 03 August 2021
Expiration Date: 17 August 2021

NOTICE OF AVAILABILITY

Draft Environmental Assessment

Buckeye Water District Old Fredericktown Waterline Extension in Columbiana County, OH

The U.S. Army Corps of Engineers, Pittsburgh District (USACE) is evaluating a Federal funding request for a proposed waterline extension in St. Clair Township, Columbiana County, Ohio.

The USACE invites submission of comments on the environmental impact of the approval of the request. The USACE will consider all submissions received before the expiration date of the public comment period. The nature or scope of the proposal may be changed upon consideration of the comments received.

The draft Environmental Assessment and draft Finding of No Significant Impact are available electronically at:

<http://www.lrp.usace.army.mil/Missions/Planning-Programs-Project-Management/>

Comments can be submitted via email to Erin.Stuart@usace.army.mil. Comments must be received by 17 August 2021 to ensure consideration.

DRAFT FINDING OF NO SIGNIFICANT IMPACT

Buckeye Water District Frederick Heights Waterline Project 2B St. Clair Township, Columbiana County, Ohio

The U.S. Army Corps of Engineers, Pittsburgh District (Corps) is presenting an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The **draft** Environmental Assessment (EA), dated May 2021, for the Buckeye Water District Frederick Heights Waterline project, located in St. Clair Township, Columbiana County, Ohio, evaluates potential environmental impacts associated with the design and construction of a new waterline proposed for federal funding under the Section 594 program. Section 549 of the Water Resources Development Act (WRDA) of 1999 (Public Law 106-53), as amended, allows the Corps to consider reimbursement for design and/or construction of environmental infrastructure in Ohio.

The **draft** EA considered two alternatives for the proposed waterline. The preferred alternative, ultimately the Proposed Federal Action, includes federal funding for water supply improvements including:

- To extend the existing waterline along Old Fredericktown Road to the Frederick Heights neighborhood by constructing approximately 11,600 feet of 8-inch PVC waterline, valves, hydrants, and appurtenances, and by constructing approximately 2,300 feet of 2-inch waterline and appurtenances.

In addition to the preferred alternative, a “no action” alternative was evaluated, which includes construction of the waterline without federal funding. For both the no action and the preferred alternative, the potential effects to the following resources were evaluated:

Environmental Resource	Minor effect	No effect
Aesthetics	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Aquatic resources/wetlands	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Invasive species	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fish and wildlife habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Threatened/Endangered species	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Historic properties	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other cultural resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Floodplains	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hazardous, toxic & radioactive waste	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydrology	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Land use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Navigation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise levels	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Transportation and traffic	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Socio-economics	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental justice	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Climate change	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Child health and safety	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the Corps determined that the preferred alternative will have no effect on federal listed threatened or endangered species or on designated critical habitat.

Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended, the Corps subsequently determined that the Proposed Federal Action has no effect on historic or cultural resources. A letter dated June 14, 2021, from the Ohio State Historic Preservation Office stated that the proposed project will have no effect on historic properties.

A 15-day public comment period will occur from 3 August 2021 to 17 August 2021. The Corps will consider all submissions received before the expiration date of the public comment period. The nature or scope of the proposal may change upon consideration of the comments received. If significant effects on the quality of the human environment are identified during public comment which cannot be mitigated, the Corps will initiate an Environmental Impact Statement (EIS) and afford all of the appropriate public participation opportunities attendant to an EIS.

After having carefully evaluated all aspects of the Proposed Federal Action and based on the draft EA, I have reasonably concluded that the Proposed Federal Action does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not required and will not be prepared.

Date

ANDREW J. SHORT
COLONEL, Corps of Engineers
District Commander

DRAFT ENVIRONMENTAL ASSESSMENT

BUCKEYE WATER DISTRICT'S OLD FREDERICKTOWN WATERLINE EXTENSION PHASE 2B COLUMBIANA COUNTY, OHIO

May 2021

Prepared for:



**US Army Corps
of Engineers®**

Pittsburgh District
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SECTION 1 – PROJECT DESCRIPTION

1.1 Project Background

This Environmental Assessment (EA) is being prepared for the U.S. Army Corps of Engineers, Pittsburgh District (Corps) in compliance with the National Environmental Policy Act (NEPA) of 1969 and in accordance with the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA, 40 Code of Federal Regulations (CFR), Part 1500-1508, and with the Corps' NEPA implementing regulations, Engineer Regulation (ER) 200-2-2 (33 CFR 230). The objective of the EA is to evaluate Buckeye Water District's proposed Old Fredericktown Waterline Extension Phase 2B, also known as and referred to as the Frederick Heights Waterline Project 2B, (Project) water system improvements' potential environmental effects near the Calcutta area located in eastern Columbiana County, Ohio (Figure 1, Appendix A).

The Buckeye Water District operates a water treatment plant with one elevated storage tank that sources drinking water from the Ohio River via a pumping station and is currently permitted to treat 4 MGD (PWS ID OH1502911). The Buckeye Water District services Columbiana County and the Village of Wellsville in Ohio.

The project is located within Columbiana County in and around St. Clair Township. It encompasses Woodlawn Drive within the Country Estates residential subdivision in addition to South Park Circle, North Park Circle, Ingles Drive, Lantz Court, Indy Court, Ivan Court, and Parkview Drive within the Frederick Heights residential subdivision (Figure 2, Appendix A).

The Old Fredericktown Waterline Extension Phase 2B project consists of the extension and installation of approximately 11,600 feet of 8-inch PVC-C900 DR14 Waterline accompanied by the necessary valves, hydrants, appurtenances, and water services as well as the installation of 2,300 feet of 2-inch PE-DR9 waterline & appurtenances around cul-de-sacs within the Country Estates and Frederick Heights subdivisions. The project will also include driveway repair, seeding, and mulching.

The proposed project received Ohio EPA Division of Drinking and Ground Waters Permit to Install approval on July 10, 2019. A copy of the approval is provided in Appendix B.

1.2 Purpose, Need, and Authorization

The purpose of the proposed project is to ensure that the residents in the area have an adequate drinking supply. The homes in the area along Old Fredericktown Road in the Country Estates subdivision and Frederick Heights subdivision have deep wells that provide a limited amount of water. These wells have also begun to run dry during periods of drought.

1.3 Authority

The Water Resources Development Act (WRDA) of 1999 (Public Law 106-53) Section 594 authorizes the Corps to provide assistance to non-Federal interests to implement design

and/or construction of publicly owned water related environmental infrastructure projects in Ohio.

SECTION 2 – ALTERNATIVES

2.1 Introduction

Under NEPA, a reasonable range of alternatives must be considered prior to undertaking an action. Alternatives considered must include, at a minimum, the proposed action and the “No-Action” Alternative, which provides a baseline from which to compare other alternatives. The alternatives identified below were evaluated to determine if they satisfy the purpose and need of the project.

2.2 Alternatives

2.2.1 No-Action Alternative

Under the No-Action Alternative, the Buckeye Water District would construct the proposed project without the use of Section 594 federal funds.

2.2.2 Water System Improvements (preferred Alternative)

Under the Preferred Alternative, the Buckeye Water District would construct approximately 11,600 feet of 8-inch PVC-C900, DR14 Waterline and necessary valves, hydrants, appurtenances, water services and approximately 2,300 feet of 2-inch PE-DR9 waterline and appurtenances around cul-de-sacs within the Country Estates subdivision and Frederick Heights subdivision. The project will also include driveway repair, seeding, and mulching. This would provide drinking water to the residents of the subdivisions that are reliant on drying private wells.

SECTION 3 – AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This section describes the existing affected environment (existing condition of resources relevant to the alternatives being considered) and evaluates potential environmental effects on those resources. Since the no-action alternative will result in the completion of the project without the use of federal funds, the environmental consequences section addresses both alternatives. The project area was considered as the construction limits shown on the plan set included in Appendix A. An action area is defined as all areas that may be affected directly or indirectly by the Federal action. The action area is located within and adjacent to the Old Fredericktown Waterline Extension Phase 2B project in the Country Estates subdivision and Frederick Heights subdivision within Saint Clair Township, Ohio. Unless otherwise defined, the action area included an additional 10-foot buffer on either side of the proposed waterline alignment construction limits and was considered when evaluating the environmental effects.

3.2 Resources and Analyses Not Considered in Detail

Based on the nature of the project and specific resources located within the study area, the No-Action and Preferred Alternatives would not be expected to affect the resources identified in the following sections.

3.2.1 Floodplains

The Federal Emergency Management Agency (FEMA) Flood Information Rate Map (FIRM) panels 39029C0360E and 39029C0355E were reviewed for the presence of flood hazard zones (FEMA, 2012). No areas within the project location were identified as floodplains.

3.2.2 Recreational Resources

The project area is located entirely within existing residential lawn and existing right-of-way or utility easements. No areas within the project were identified as having recreational value.

3.3 Land Use

3.3.1 Affected Environment

The Country Estates subdivision and Frederick Heights subdivision are located in Saint Clair Township in Columbiana County, Ohio and are part of the Calcutta area, a census-designated place. The population of Calcutta at the time of the last census (2010) was 3,742.

The proposed project is entirely within existing residential lawn and existing right-of-way or utility easements. The Columbiana County Auditor website indicates many of the properties within the project area are zoned residential and one property is zoned agricultural (Parcel ID 61-07396.028). Current land use in the project area is maintained right-of-way and residential lawn for single-family homes. The project area follows Woodlawn Drive within the Country Estates residential subdivision, and South Park Circle, North Park Circle, Ingles Drive, Lantz Court, Indy Court, Ivan Court, and Parkview Drive within the Frederick Heights residential subdivision.

3.3.2 Environmental Consequences

Changes in land use would not occur under either alternative. Additionally, community facilities would not be impacted. The proposed project is entirely within existing residential lawn and existing right-of-way or utility easement. The project will have no effect on land use.

3.4 Climate

3.4.1 Affected Environment

The Upper Ohio watershed's geographic location makes it susceptible to highly variable weather throughout the year. The watershed experiences seasonal weather patterns throughout the year, with a large range of temperatures. The temperature in Columbiana County ranges from a 20-degree Fahrenheit low during the winter months to an 83-degree Fahrenheit high during the summer months. The annual rainfall in the county is approximately 38.49 inches, with most falling in July. Average snowfall is about 28 inches, with most falling equally in January and February.

3.4.2 Environmental Consequences

Only short duration, minor discharges of carbon-based pollutants that could contribute to greenhouse gases would occur during construction activities. Neither alternative would involve any activity that could significantly affect the environment regarding climate change and would not likely be influenced by future changes in climate. Therefore, no significant adverse impacts to climate or climate change would occur because of the proposed project.

3.5 Terrestrial Habitat

3.5.1 Affected Environment

The project area is entirely within existing residential lawn and existing right-of-way or utility easements. Within the project area, the habitat is maintained turf composed of common lawn species including but not limited to *Festuca spp.* and *Plantago spp.* The area also includes moderate coverage of impervious surfaces such as asphalt and concrete driveway aprons. Within the project area, the topography is relatively flat and

generally slopes to the west towards Longs Run a tributary to Little Beaver Creek. No direct wildlife observations were observed during field reconnaissance activities. However, wildlife within the project area is presumed to be limited to small ubiquitous mammals and transient birds.

3.5.2 Environmental Consequences

The proposed project would have a temporary adverse impact during construction on terrestrial habitat and some forms of fauna. These animals may be displaced to outlying areas during the water line replacement due to increased human presence and noise levels. However, the construction is adjacent to residential properties and these animals are likely accustomed to noise so will likely to return after the construction activities are complete. The terrestrial habitats temporarily affected by the proposed project will be returned to their original contours and reseeded. Under either alternative there would be a minimal effect to terrestrial resources/wildlife.

3.6 Invasive Species

3.6.1 Affected Environment

Executive Order 13112 of February 3, 1999 created a coordinating body -- the Invasive Species Council, also referred to as the National Invasive Species Council -- to oversee implementation of the order, encourage proactive planning and action, develop recommendations for international cooperation, and take other steps to improve the Federal response to invasive species. Executive Order 13751 of December 8, 2016 maintained the National Invasive Species Council and the Invasive Species Advisory Committee; expanded the membership of the Council; clarified the operations of the Council; incorporated considerations of human and environmental health, climate change, technological innovation, and other emerging priorities into Federal efforts to address invasive species; and strengthened coordinated, cost-efficient Federal action. The project area is entirely within existing residential lawn and existing right-of-way or utility easements. Within the project area, the habitat is maintained turf composed of common lawn species including but not limited to *Festuca spp.* and *Plantago spp.*

3.6.2 Environmental Consequences

No terrestrial or aquatic invasive species were observed or documented within the project area. The proposed project would have a temporary adverse impact to terrestrial habitat present during construction. The terrestrial habitats temporarily affected by the proposed project will be returned to their original contours and be reseeded per ODOT CMS Item 659 of the plan set which states "ALL SEEDING SHALL BE A SEED MIX UTILIZED FOR RESIDENTIAL LAWNS." The ODOT Lawn Mixture contains *Poa pratensis*, *Festuca rubra*, *Lolium multiflorum*, and *L. perenne* none of which are considered invasive terrestrial species by the USDA, therefore under either alternative there would be a minimal chance to introduce invasive species into the project area.

3.7 Prime and Unique Farmland

3.7.1 Affected Environment

The purpose of the Farmland Policy Protection Act (FPPA) (7 U.S.C. 4201 et seq, implementing regulations 7 CFR Part 658, of the Agriculture and Food Act of 1981, as amended) is to minimize the impact of Federal programs on prime farmland, unique farmland, and land of statewide or local importance.

Specific soils within and near the project site are described in **Table 1**.

TABLE 1: SOILS WITHIN PROJECT AREA

Soil Symbol	Soil Name	Prime Farmland
BkC	Berks channery silt loam, 8-15% slopes	No
GnB	Gilpin silt loam, 3-8% slopes	Yes
GnC	Gilpin silt loam, 8-15% slopes	No
GoC	Giplin-Coshocton silt loams, 6-15% slopes	No
KeB	Keene silt loam, 2-6% slopes	Yes

Source: USDA NRCS Soil Survey

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey of Columbiana County, soil types indicative of prime farmland that are present in the project area include GnB and KeB.

3.7.2 Environmental Consequences

One segment of the waterline alignment, from approximately STA 403+50 to STA 404+50, traverses through the zoned agricultural property with a portion of it within KeB soil boundaries. However, the segment is entirely within an existing utility easement and the prime farmland soils temporarily affected by the proposed project will be returned to their original contours and reseeded. Neither alternative will affect the protection of prime or unique farmland.

3.8 Aquatic Habitat/Water Quality and Wetlands

3.8.1 Affected Environment

An Ecological Resources Assessment was conducted in support of the proposed project. During the Ecological Resources Assessment, the centerline of the alignment plus a 10-foot buffer was investigated to determine the presence or absence of jurisdictional (i.e., non-isolated) or isolated wetlands in the project area following 1987 Corps Manual 3-parameter approach, and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont 2.0 (USACE, 2010). No streams, wetlands, or other potential Waters of the US (WOTUS) were observed or documented within the project area.

The existing Buckeye Water District water treatment plant is permitted to treat 4 MGD sourced from the Ohio River via a pumping station. Currently the water treatment plant sources approximately 1 MGD to service the existing clients.

3.8.2 Environmental Consequences

No streams, wetlands, or other potential Waters of the US (WOTUS) were observed or documented within the project area. Additionally, any temporary sediment runoff that may impact water quality will be negated using storm water pollution prevention measures. Neither alternative would impact aquatic habitats, water quality, or wetlands.

The proposed project will use 0.03 MGD to service the project area. An amendment to the Buckeye Water District water treatment plant's permit (PWS ID: OH1502911) is not required for either alternative.

3.9 Wild and Scenic Rivers

3.9.1 Affected Environment

The Wild and Scenic Rivers System was established through the Ohio Scenic Rivers Act passed in February 1968 and the National Wild and Scenic Rivers Act (Public Law 90-542; 16 U.S.C. 1271 et seq.) passed by Congress in October 1968. The purpose of these acts is to preserve rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. A review of the state and national Wild and Scenic River inventory lists indicates that Little Beaver Creek, a state Wild and Scenic River, is 0.5-mile from the project area.

3.9.2 Environmental Consequences

The project area is entirely within existing residential lawn and existing right-of-way or utility easement. Additionally, any temporary sediment runoff that may impact water quality will be negated using storm water pollution prevention measures. Neither alternative would impact State and National Wild or Scenic Rivers.

3.10 Hazardous, Toxic, and Radioactive Wastes

3.10.1 Affected Environment

A Phase I Environmental Site Assessment (Phase I ESA) was conducted by Lawhon & Associates, Inc in support of the proposed project in March 2021. During the Phase I ESA, the project area and adjacent properties were inspected/observed to determine what, if any, adverse environmental conditions and/or hazardous materials may be present within and adjacent to the project area.

The project area for the Phase I ESA extended 25 feet from the centerline of the various roadways throughout the subdivisions and included linear corridors (i.e. sidewalks, grassy areas) of neighboring residential properties. No hazardous substances or petroleum products were observed during an on-site inspection, nor were above ground storage tanks or evidence of underground storage tanks observed in the project area. Containers of hazardous substances, petroleum products, or unidentified substances were not observed within the project area.

The Phase I ESA also included a review of information provided by the client, a review of environmental records assembled by Environmental Data Resources, Inc. (EDR), local and regional environmental records, and historical research. The Phase I ESA revealed no evidence of recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) or historical recognized environmental conditions (HRECs) in connection with the project area. A complete copy of the Phase I ESA is included as Appendix D.

3.10.2 Environmental Consequences

There are no known hazardous substances, storage tanks, or petroleum products evident within the project area and no evidence of any of these features was observed during the Phase I ESA activities. No hazardous materials or waste would be generated by construction and subsequent operation of the proposed project. The proposed project is unlikely to result in short or long-term impacts regarding hazardous materials and waste. The proposed project will have no effect on hazardous materials and wastes.

3.11 Cultural Resources

3.11.1 Affected Environment

The National Historic Preservation Act (NHPA) of 1966, as amended, directs federal agencies to assume responsibility for all cultural resources under their jurisdiction. Section 106 of NHPA requires agencies to consider the potential effect of their actions on properties that are listed, or are eligible for listing, on the National Register of Historic Places (NRHP). The NHPA implementing regulations, 36 CFR Part 800, requires that the federal agency consult with the State Historic Preservation Office (SHPO), Native American tribes, and interested parties to ensure that all historic properties are adequately identified, evaluated, and considered in planning for proposed undertakings.

A Phase I archaeological investigation was conducted by Lawhon & Associates, Inc for the proposed project in March 2021. No cultural resources were identified during the Phase I archaeological investigation. Additionally, there is no indication that significant archaeological sites are present within the area surrounding this project.

3.11.2 Environmental Consequences

Neither alternative will result in adverse impacts to any known cultural resources. No further work is recommended regarding compliance with Section 106 of the NHPA. The proposed project will have no effect on cultural resources and historic properties.

If previously unidentified archaeological or historic properties or unanticipated effects are discovered after completion of Section 106 review, work in the direct vicinity of the findings will stop immediately until the proper course of action can be coordinated with the SHPO. No further construction in the discovery area will proceed until the requirements of 36 CFR Section 800.13 have been satisfied, including consultation with federally recognized

Native American tribes that may attach traditional cultural and religious significance to the discovered property. The Corps will consult with the SHPO and Native American tribes, as appropriate, to record, document, and evaluate NRHP eligibility of the property and the project's effect on the property, and to design a plan for avoiding, minimizing, or mitigating adverse effects on the eligible property. If neither the SHPO nor a federally recognized Native American tribe files a timely objection to the Corps' plan for addressing the discovery, the Corps may carry out the requirements of 36 CFR Section 800.13 and the Advisory Council on Historic Preservation need not be notified.

3.12 Threatened and Endangered Species

3.12.1 Affected Environment

The Endangered Species Act established a national program for the conservation of threatened and endangered fish, wildlife and plants and the habitat upon which they depend. Section 7(a)(2) of the Endangered Species Act requires Federal agencies to consult with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their critical habitats.

There are three Endangered Species Act listed species in Columbiana County, Ohio. The Indiana bat (*Myotis sodalis*) is listed as an endangered species and the northern long-eared bat (*Myotis septentrionalis*) and eastern massasauga (*Sistrurus catenatus*) are listed as threatened species.

According to the USFWS, no records of threatened and endangered (T&E) species or critical habitat are found within the project area, nor are any federal-listed T&E species known to occur within a one-mile radius of the project area. Summer habitat for the Indiana bat and northern long-eared bat consist of a wide variety of forested/wooded habitats where they roost, forage, and travel, and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields, and pastures. This includes forests and woodlots containing potential roosts such as live trees and/or snags, greater than three inches in diameter that have exfoliating bark, cracks, crevices, hollows, and/or cavities. Suitable summer roost habitat for the Indiana bat and northern long-eared bat is not present within the project area.

According to the Ohio Department of Natural Resources (ODNR) Natural Heritage Database the project area is within a one-mile radius of the state-listed species presented in **Table 2**.

TABLE 2: STATE-LISTED SPECIES WITHIN A ONE-MILE RADIUS

Common Name	Scientific Name	State-Listed Status
Allegheny-vine	<i>Adlumia fungosa</i>	Endangered
Common oak fern	<i>Gymnocarpium dryopteris</i>	Threatened
Wavy-rayed lampmussel	<i>Lampsilis fasciola</i>	Species of Concern

Common Name	Scientific Name	State-Listed Status
Creek heelsplitter	<i>Lasmigona compressa</i>	Species of Concern
Kidneyshell	<i>Ptychobranchnus fasciolaris</i>	Species of Concern
Cerulean warbler	<i>Setophaga cerulea</i>	Species of Concern
Blue-headed vireo	<i>Vireo solitarius</i>	Species of Interest

The project area is also within one-mile of the following resources: Beaverkettle Farms, Jackman Vodrey & Vodrey Easements – ODNR Scenic Rivers Program, Little Beaver Creek State Scenic River, and Little Beaver Creek State Park – ODNR Division of Parks & Watercraft.

Finally, ODNR Division of Wildlife advises that the project lies within the range of the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel; the gilt darter (*Percina evides*), a state endangered fish; the Tippecanoe darter (*Etheostoma tippecanoe*), a state threatened fish; the channel darter (*P. copelandi*), a state threatened fish; and the river darter (*P. shumardi*), a state threatened fish. ODNR also advises the project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species; the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*) a state endangered species and a federal species of concern; the American bittern (*Botaurus lentiginosus*), a state endangered bird; the least bittern (*Ixobrychus exilis*), a state threatened bird; northern harrier (*Circus hudsonis*), a state endangered bird; and the sandhill crane (*Grus canadensis*), a state threatened species.

3.12.2 Environmental Consequences

The project area is entirely within existing residential lawn and existing right-of-way or utility easement. No tree clearing is proposed for the project area and no in-water work is proposed in a stream. Neither alternative would impact terrestrial or aquatic federal and state listed threatened and endangered species.

3.13 Air Quality

3.13.1 Affected Environment

According to the USEPA website, Columbiana County is classified as “in attainment” (maintaining applicable standards) for all criteria pollutants. Emission sources include diesel exhaust and fuel odors associated with operation of heavy equipment, engine emissions associated with construction, and construction activities. All construction would be performed in compliance with applicable control requirements established by the OEPA.

Construction activities of the proposed project would have the potential to cause localized temporary, nuisance air quality impacts which include particulate emissions from construction equipment and fugitive dust from excavation.

3.13.2 Environmental Consequences

The proposed project is exempted by 40 CFR Part 93.153(c)(1) from making a conformity determination, since estimated emissions from construction equipment would not be expected to exceed de minimis levels, direct emissions of a criteria pollutant, or its precursors. Any impacts would be localized and would occur only during construction phase activities. During construction, the contractor shall meet all existing federal and state regulations regarding equipment emissions. Impacts to air quality under the proposed project would be minor and temporary during construction and would not have significant long-term adverse impacts. Either alternative will have a minimal effect on air quality.

3.14 Noise

3.14.1 Affected Environment

The Noise Control Act of 1972 directs Federal agencies to comply with Federal, State, interstate, and local requirements respecting control and abatement of environmental noise.

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise sensitive land uses in the project area include residential areas, businesses, and schools. Sensitive receptors in the project area include residents, employees and customers of businesses, and students.

3.14.2 Environmental Consequences

There may be temporary increases in noise levels within the project area during construction of the proposed project. No permanent noise impacts are anticipated because of the proposed action. Either alternative will have a minimal effect on noise.

3.15 Environmental Justice and Protection of Children

3.15.1 Affected Environment

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs Federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law.

According to the Office of Policy, Research and Strategic Planning with the Ohio Department of Development, the 2019 population estimate is 101,883 individuals within Columbiana County. The 2019 US Census population estimate for Saint Clair Township is 7,486 individuals. The trade, transportation, and utilities industry, the education and health services industry, and the manufacturing industry employ the most workers in the

county. The range of weekly earnings for all employment sectors (private and public) was \$255 to \$925 per week in 2018. The median household income for Columbiana County in 2016 was \$46,306.

The USEPA EJScreen Mapper tool was used to review demographic data to identify environmental justice populations in the project area. There is one census block group in the project area: Census Tract (CT) 9516, Block Group (BG) 4. Low income makes up 33% of the total population, 31% of the population is over the age of 64, and people of color make up 8% of the total population within the census block group.

3.15.2 Environmental Consequences

The project area is limited to existing right-of-way or utility easement. No changes in land use are anticipated because of the proposed project. There would be no residential displacements because of the proposed project. No impacts to community facilities are anticipated and the proposed project would not result in impacts to community cohesion. No disproportionate adverse impacts to environmental justice populations are anticipated because of the proposed project. All community members, including environmental justice populations, would be expected to benefit from the proposed project. Neither alternative would have a negative effect on socioeconomic conditions.

3.16 Aesthetic Resources

3.16.1 Affected Environment

The project area is rural, located entirely within existing residential lawn and existing right-of-way or utility easement. Minor temporary disturbance of local aesthetics would be anticipated during construction of the proposed project due to the installation of the waterline, necessary valves, and hydrants.

The proposed action consists primarily of subsurface water system improvements. Permanent aesthetic changes above ground would be minor and limited to the placement of fire hydrants. As a result, no permanent adverse aesthetic impacts are anticipated because of the proposed action.

3.16.2 Environmental Consequences

Due to the temporary nature of these impacts, following construction, there would be no long-term impacts to aesthetics. Therefore, neither alternative will have any adverse impacts to aesthetics and only temporary impacts would occur.

3.17 Health and Safety

3.17.1 Affected Environment

The proposed project has been designed to provide a safe, reliable drinking water source to the residents of the project area that are currently utilizing private deep well systems.

The existing deep wells are running dry when the project area experiences drought and a low level of groundwater. Additionally, the proximity for septic and well system designs have changed since the subdivisions were built, requiring additional distance between the two systems.

3.17.2 Environmental Consequences

Neither alternative for the proposed project will have a negative impact on health and safety. Providing access to the waterline is necessary to ensure the residents of the subdivisions have drinking water. Therefore, the proposed project is anticipated to have a long-term, beneficial impact on health and safety for the residents in the project area.

3.18 Transportation and Traffic

3.18.1 Affected Environment

The proposed project includes water system improvements along Woodlawn Drive within the Country Estates residential subdivision and along South Park Circle, North Park Circle, Ingles Drive, Lantz Court, Indy Court, Ivan Court, and Parkview Drive within the Frederick Heights residential subdivision.

3.18.2 Environmental Consequences

The proposed action would be constructed entirely within the existing right-of-way or utility easement. There would be temporary disruptions to traffic during construction of the project. Following construction, the transportation system would return to its existing condition. No permanent impacts to traffic or transportation are anticipated because of the proposed project. Either alternative will have a minimal effect on transportation and traffic.

SECTION 4 – COORDINATION, CONSULTATION, AND PUBLIC INVOLVEMENT

4.1 Federal Agency Coordination

Consultation with federal agencies has been completed throughout the design and development of the proposed project. Response letters from agencies are provided in Appendix B.

The USFWS was consulted via a project review letter (TAILS# 03E15000-2021-TA- 0896) to determine the potential for effects on the project regarding Section 7(a)(2) of the Endangered Species Act. All projects in the State of Ohio lie within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs. No suitable habitat occurs within the project area. The USFWS technical assistance letter indicated there are no other records of T&E species or critical habitat found within the project area, nor are there any other federal listed T&E species known to occur within a one-mile radius of the project area.

4.2 State Agency Consultation

Consultation with state agencies has been completed throughout the design and development of the proposed project. Response letters from agencies are provided in Appendix B.

A coordination letter was also sent to the ODNR-Office of Real Estate for an environmental review. ODNR returned results for state listed species and resources within a one-mile radius of the project area. ODNR also commented on species that may be within range of the project area. Based on the type of construction and lack of sufficient suitable habitat, the ODNR commented that this project is not likely to impact any of the identified species.

The Ohio EPA – Division of Drinking and Ground Waters reviewed and approved a Permit to Install application pursuant to Ohio Revised Code Sections 6109.07 et. seq. A variance was granted where less than 10 feet of horizontal separation was provided between the existing sewer and the proposed water main.

The Phase I archaeological investigation completed for the proposed project in March 2021 was coordinated by the Corps with the SHPO, Ohio History Connection. The Ohio History Connection concurred with the Corps' no effect determination in a letter dated June 14, 2021, stating "No further archaeological investigations are warranted for the APE. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project." Pursuant to 36 CFR 800.13, if any unanticipated discoveries are encountered during construction the

Corps will re-initiate Section 106 consultation with the SHPO and Native American tribes, as appropriate.

4.3 Public Involvement

The Buckeye Water District Board of Trustees held regular meetings in which residents of the community and township trustees were present as guests. The first meeting in April of 2010 initiated the project with residential signatures presented. Subsequent meetings in 2018 detailed the necessity for the proposed project, addressing the drinking water quality and the outdated residential design standards. Flyers were passed out for a community meeting that was held on September 27, 2018. In December of 2018, the motion to move forward with the proposed project was passed unanimously by the Buckeye District Water Board of Trustees. Progress of the project halted in mid-2020 due to the coronavirus pandemic. Finally, news articles were published in the Morning Journal on May 1, 2019, May 7, 2020, September 18, 2020, and December 18, 2020. There are no additional public meetings or public hearings planned for this project prior to construction. Copies of the Board Minutes and news paper articles are provided in Appendix C.

SECTION 5 – CONCLUSION

Based on the information presented in this EA, the proposed project would result in no significant adverse impacts to the human or natural environment. A summary of the resources evaluated is provided in **Table 3**. Therefore, it is anticipated that the project meets the requirements for issuance of a Finding of No Significant Impacts (FONSI) per 40 CFR 1508.13

TABLE 3: RESOURCES EVALUATED AND DETERMINATION OF POTENTIAL EFFECTS

Environmental Parameter	No Effect	Minimal Effect	Significant Effect	Basis for Determination
Land Use	X			No changes in land use.
Climate		X		Temporary impacts from minor discharges of carbon-based pollutants would occur during construction activities.
Terrestrial Resources/Wildlife		X		Terrestrial habitats temporarily affected will be returned to their original contours and reseeded.
Invasive Species		X		Minimal potential for invasive species introduction.
Prime & Unique Farmland		X		No conversion of farmland for the project. Temporarily affected prime farmland will be returned to the original contours and reseeded.
Streams, Other Water Bodies, and Water Quality	X			No resources identified in the project area.
Floodplains & Wetlands	X			No resources identified in the project area.
Aquatic Life/Fisheries	X			No streams identified in the project area.
Hazardous Materials & Wastes	X			No evidence of recognized environmental conditions in connection with the project area.
Cultural Resources & Historic Properties	X			No cultural or historic resources identified.
T&E Species	X			No habitat identified within the project area.
Air Quality		X		Impacts to air quality would be minor and temporary during construction.
Noise		X		Temporary increases in noise levels during construction.
Socioeconomic Conditions	X			No changes in land use anticipated. No displacements, no impacts to community facilities, no disproportionate impacts to environmental justice populations.
Transportation & Traffic		X		Temporary disruptions to traffic during construction. No permanent impacts to transportation & traffic.

SECTION 6 – REFERENCES

American Society for Testing and Materials (ASTM) Designation: E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, 2013.

Columbiana County, Ohio. Auditor's Office. Property Records. Accessed 2021.

Columbiana County, Ohio. Recorder's Office. Property Records. Accessed 2021.

Environmental Data Resources, Inc., Shelton, CT. City Directories, Radius Report, Sanborn Fire Insurance Maps, Aerial Photographs and Topographic Maps. Accessed 2021.

FEMA. FIRM Panels 39029C0355E & 39029C0360E. Data publication date: May 2012. <http://www.msc.fema.gov>. Accessed 2021.

Google Earth Pro. 2021. 1994-2020 Aerial Imagery.

Lawhon & Associates, Inc. 2021. Ecological Resources Assessment for the Old Fredericktown Road Water Line Project in St. Clair Township, Columbiana County, Ohio. Columbus, Ohio.

Lawhon & Associates, Inc. 2021. Phase I Archaeology Survey Old Fredericktown Road Waterline Extension. Columbus, Ohio

Lawhon & Associates, Inc. 2021. Phase I Environmental Site Assessment: Old Fredericktown Road Waterline Extension Project. Columbus, Ohio

Mack, John J. 2001. Ohio Rapid Assessment Method for Wetlands, Manual for Using Version 5.0. Ohio EPA Technical Bulletin Wetland/2001-1-1. Ohio Environmental Protection Agency, Division of Surface Water, 401 Wetland Ecology Unit, Columbus, Ohio. 64 pp.

Ohio Development Services Agency. 2020. Ohio County Profiles: Columbiana County. <https://development.ohio.gov/files/research/C1016.pdf>. Accessed 2021.

Ohio Division of Geological Survey (ODGS). 1998. Physiographic Regions of Ohio: Ohio Department of Natural Resources, Division of Geological Survey. 2 pp.

Ohio Division of Geological Survey (ODGS). 2006. Bedrock Geologic Map of Ohio. Ohio Department of Natural Resources, Division of Geological Survey, Columbus.

Ohio Historic Preservation Office (OHPO). 1994. Archaeology Guidelines. Historic Preservation Office, Columbus, Ohio.

U.S. Census Bureau. 2010. 2010 Census. Profile of General Population and Housing Characteristics: 2010 for New Waterford, Ohio. <http://www.census.gov/prod/cen2010>. Accessed 2021.

U.S. EPA. 2017. EnviroMapper. <http://www.epa.gov/emefdata/em4ef.home>. Accessed 2021.

U.S. EPA. Interactive Map of Air Quality Monitors. <https://www.epa.gov/outdoor-air-quality-data/interactive-map-air-quality-monitors>. Accessed 2021.

U.S. Federal Highway Administration. 2014. Construction Noise Handbook. Available online at: https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm.

United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov>. Accessed 2021.

USFWS. National Wetlands Inventory. Ohio dataset.
<http://www.fws.gov/wetlands/Data/State-Downloads.html>

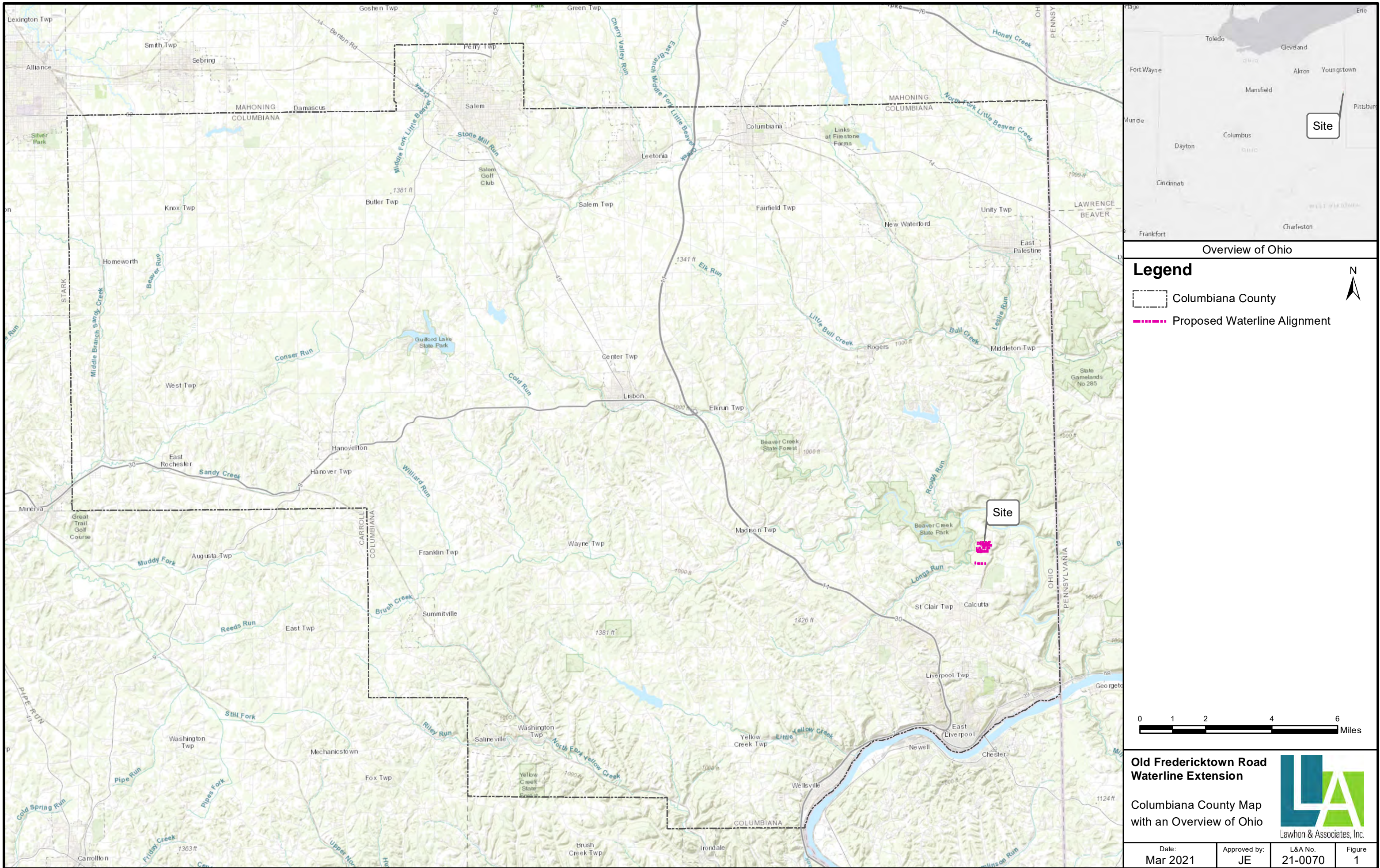
USFWS. 2018. Threatened, Endangered, and Candidate Species for Columbiana County, Ohio. <https://www.fws.gov/midwest/endangered/lists/ohio-cty.html>

USGS. 1990. East Liverpool North quadrangle, Ohio [map]. 1:24,000. 7.5 Minute Series. Washington, D.C.: USGS, 1960 Revised 1990.

USGS. 2002. National Hydrography Dataset. Ohio dataset.
ftp://nhdftp.usgs.gov/DataSets/Staged/States/FileGDB/HighResolution/NHDH_OH_931v220.zip

APPENDIX A – FIGURES

- **Columbiana County Overview Map**
- **East Liverpool North USGS Topographic Map**
- **Aerial Location Map**
- **FEMA Firmette Floodplain Map**
- **USDA NRCS Soil Survey Map**
- **Old Frederick Town Waterline Extension – Phase 2B Plan Set**



Legend

- Columbiana County
- Proposed Waterline Alignment



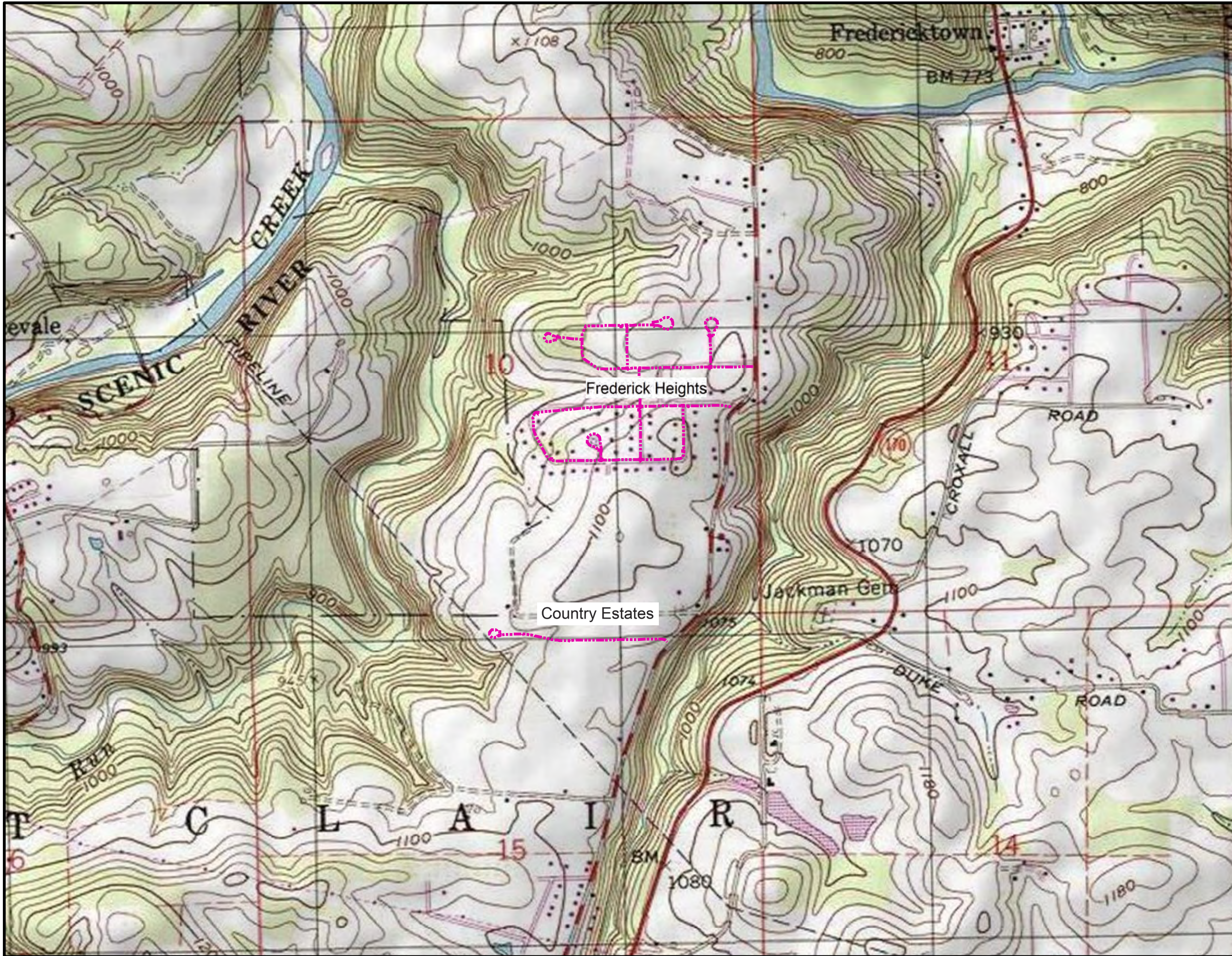
Old Fredericktown Road Waterline Extension

Columbiana County Map with an Overview of Ohio



Lawhon & Associates, Inc.

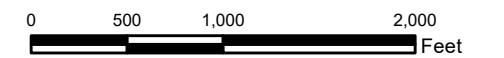
Date: Mar 2021	Approved by: JE	L&A No. 21-0070	Figure 1
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Site Location Map

Legend

Proposed Waterline Alignment



Old Fredericktown Road Waterline Extension

USGS Topographic Map
East Liverpool North Quad



Date: Mar 2021	Approved by: JE	L&A No. 21-0070	Figure 3
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Site Location Map

Legend

— Proposed Waterline Alignment



Old Fredericktown Road Waterline Extension

Location Map



Lawhon & Associates, Inc.

Date: Mar 2021	Approved by: JE	L&A No. 21-0070	Figure 2
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National Flood Hazard Layer FIRMMette



80°33'58"W 40°42'27"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **3/24/2021 at 4:09 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMMette

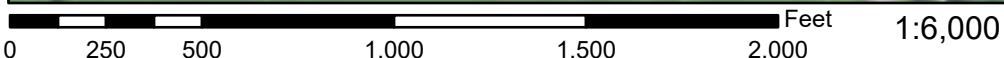


80°34'7"W 40°42'3"N



Columbiana County
390076

AREA OF MINIMAL FLOOD HAZARD
Zone X



80°33'29"W 40°41'36"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
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		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



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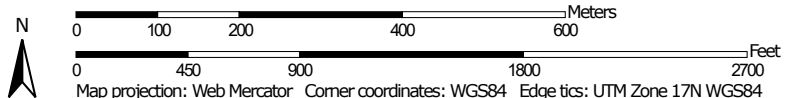
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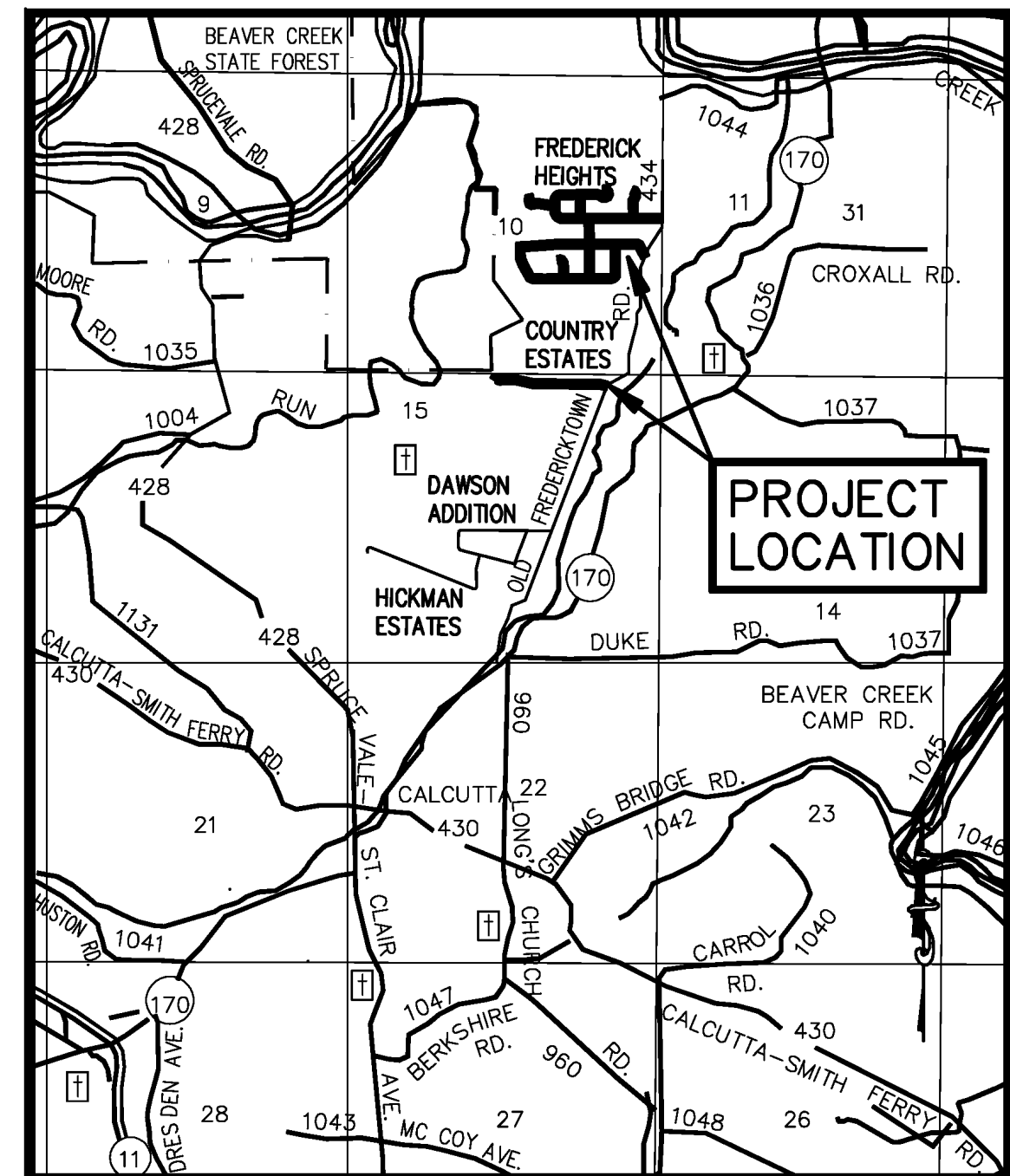
Custom Soil Resource Report Soil Map



Map Scale: 1:9,270 if printed on A portrait (8.5" x 11") sheet.



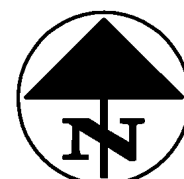
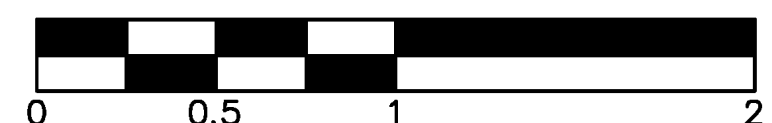
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84



LOCATION MAP

LATITUDE: 40° 41' 49" LONGITUDE: 80° 33' 49" (COUNTRY ESTATES)
 LATITUDE: 40° 42' 16" LONGITUDE: 80° 33' 39" (FREDERICK HEIGHTS)

SCALE IN MILES



- PORTION TO BE IMPROVED
- INTERSTATE & DIVIDED HIGHWAY
- UNDIVIDED STATE & FEDERAL ROUTES
- OTHER ROADS
- VILLAGE CORPORATION LIMITS

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
 CALL TWO WORKING DAYS
 BEFORE YOU DIG

CALL
1-800-362-2764
 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS
 MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
 SERVICE CALL: **1-800-925-0988**

ENGINEERS SEAL:

SIGNED: _____
 DATE: _____

PLAN PREPARED BY:
Dallis Dawson & Associates
 CIVIL ENGINEERS AND LAND SURVEYORS
 48745 Calcutta Smith Ferry Rd.
 East Liverpool, OH 43920
 (330) 385-7836

BUCKEYE WATER DISTRICT

OLD FREDERICKTOWN ROAD

WATERLINE EXTENSION - PHASE 2B

COLUMBIANA COUNTY

STATE OF OHIO

PROJECT DESCRIPTION

EXTENSION OF APPROXIMATELY 11,580 FEET OF PROPOSED 8" WATERLINE INCLUDING THE NECESSARY APPURTENANCES, VALVES, HYDRANTS, WATER SERVICES, AND APPROXIMATELY 2,300 FEET OF 2" CUL-DE-SAC WATERLINES. LOCATED IN ST. CLAIR TOWNSHIP WITHIN THE COUNTRY ESTATES & FREDERICK HEIGHTS RESIDENTIAL SUBDIVISIONS.

SPECIFICATIONS

THE BUCKEYE WATER DISTRICT STANDARD NOTES AND DETAILS AS SHOWN IN THESE CONSTRUCTION DRAWINGS, O.E.P.A. REGULATIONS, AND THE 2019 STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT. ANY DIFFERENCES BETWEEN THE BUCKEYE WATER DISTRICT STANDARD NOTES AND DETAILS AS SHOWN IN THESE CONSTRUCTION DRAWINGS AND THE ODOT SPECIFICATIONS SHALL BE GOVERNED BY THE BUCKEYE WATER DISTRICT STANDARD NOTES AND DETAILS.

BUCKEYE WATER DISTRICT TRUSTEES

- MR. MIKE RYAN, PRESIDENT
- MR. TIM O'HARA, VICE PRESIDENT
- MR. ROBERT WINES, SECRETARY/TREASURER
- MR. DAVID DAWSON
- MR. ROY DRAY
- MR. DON HARRIS
- MR. GEORGE KOSKO
- MR. DEAN DEVITT
- MR. RICK WILLIAMS

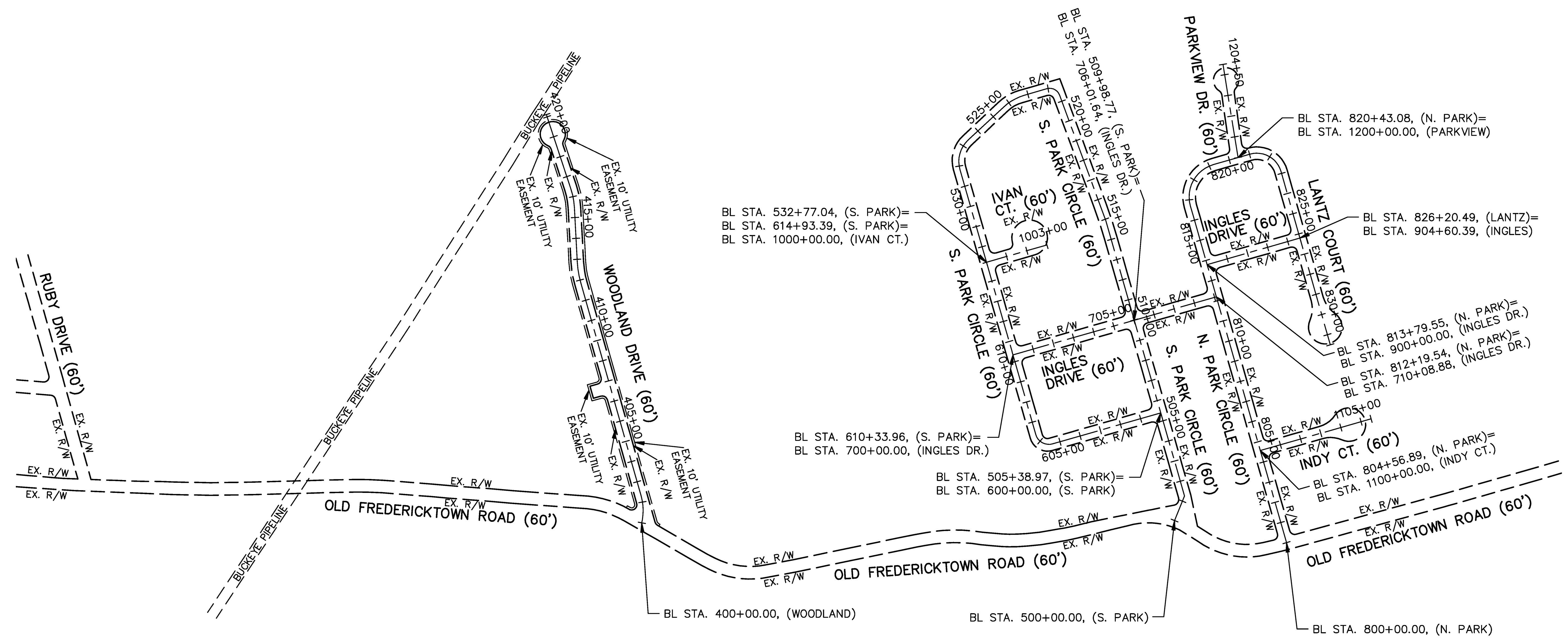
INDEX OF SHEETS:

TITLE SHEET 1
 SCHEMATIC AND GENERAL SITE PLAN 2
 GENERAL NOTES 3-5
 MAINTENANCE OF TRAFFIC 6
 STORM WATER POLLUTION PREVENTION PLAN 7-9
 GENERAL SUMMARY 10
 PLAN AND PROFILE 11-26
 WATERLINE NOTES AND DETAILS 27-30
 ODOT STANDARD CONSTRUCTION DRAWINGS

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
BP-1.1	7/28/00	MT-97.10	4/19/19	TC-41.20	10/18/13	800-2019	1/15/21
BP-2.1	7/17/15	MT-101.90	7/17/20	TC-41.50	10/18/13	832	10/19/18
BP-2.2	1/15/21	MT-105.10	1/17/20	TC-42.20	10/18/13		
BP-2.5	7/19/13			TC-52.10	10/18/13		
BP-3.1	1/17/20			TC-52.20	1/15/21		
DM-4.2	7/20/12						
DM-4.3	1/15/16						
DM-4.4	1/15/16						
						SPECIAL PROVISIONS	

APPROVED _____
 DATE _____ AL DEANGELIS
 DISTRICT MANAGER
 BUCKEYE WATER DISTRICT

FEDERAL PROJECT NO. NONE
 PID NO. NONE
 CONSTRUCTION PROJECT NO. NONE
 RAILROAD INVOLVEMENT NONE
 OLD FREDERICKTOWN ROAD WATERLINE EXTENSION
 1 / 30



NOTE
 ALL STATIONING SHOWN IS BASED UPON THE APPROXIMATE CENTERLINE OF ROADWAY PAVEMENT.

ITEM 304 – AGGREGATE BASE, AS PER PLAN

ALL ITEM 304-AGGREGATE BASE USED ON THIS PROJECT (INCLUDING BACKFILL MATERIAL) SHALL BE IN ACCORDANCE WITH THE ODOT C&MS EXCEPT THAT THE FOLLOWING WILL BE THE ONLY PERMITTED MATERIALS USED WITH ADDITIONAL NOTES:

–"CRUSHED CARBONATE STONE (CCS)"; MUST MEET THE GRADATION AND PHYSICAL REQUIREMENTS OF ODOT 703.17

–"CRUSHED GRAVEL"; MUST MEET THE GRADATION AND PHYSICAL REQUIREMENTS OF ODOT 703.17; MUST BE MANUFACTURED FROM MATERIAL RETAINED ON THE 1/2" SIEVE; MUST CONTAIN THE PERTINENT FINE MATERIAL TO PREVENT IT FROM BECOMING UNSTABLE

–"CRUSHED AIR-COOLED BLAST FURNACE SLAG (ACBFS)"; MUST MEET THE GRADATION AND PHYSICAL REQUIREMENTS OF ODOT 703.17; MUST MEET THE REQUIREMENTS OF ODOT SUPPLEMENT 1027; MATERIAL MUST BE VERIFIED AS BEING ENVIRONMENTALLY PERMISSIBLE

ITEM 305 – CONCRETE BASE, CLASS QC MS, AS PER PLAN

CONCRETE PAVEMENT REPLACEMENT FOR THE SPECIFIC CONDUIT TRENCHES DESIGNATED IN THE PLANS SHALL BE IN ACCORDANCE WITH ITEM 305: CONCRETE BASE, CLASS QC MS, AS PER PLAN AND AS SO MODIFIED IN THIS NOTE OR ON THE CONSTRUCTION DRAWINGS.

THE PROPOSED CONCRETE USED FOR THE CONCRETE PAVEMENT REPLACEMENT SHALL BE CLASS QC MS WITH MESH REINFORCEMENT. ITEM 305-CONCRETE BASE, SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 451.08 (I.E. MESH REINFORCEMENT REQUIRED).

THE USE OF DOWEL BARS FOR TRANSVERSE JOINTS WILL NOT BE REQUIRED; HOWEVER, CONTRACTION JOINTS SHALL BE PROVIDED IN ACCORDANCE WITH ODOT STANDARD DRAWING BP-2.2.

ITEM 441: ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448). AS PER PLAN. (PG64-22)

FOLLOW SPECIFICATION 703.05 EXCEPT DO NOT USE COARSE AGGREGATE FROM A SOURCE DESIGNATED 'SR' OR 'SRH' ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM 407: TACK COAT

TACK COAT SHALL BE APPLIED AT THE RATE OF 0.055 GAL./SQ. YD.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE BUCKEYE WATER DISTRICT, REPRESENTATIVES OF THE BUCKEYE WATER DISTRICT, THE AGENCY WITH JURISDICTION OF THE EXISTING DRAINAGE FACILITIES, AND THE CONTRACTOR, ALONG WITH THE RESIDENT ENGINEER, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE BUCKEYE WATER DISTRICT AND THE RESIDENT ENGINEER.

ALL NEW CONDUITS, INLETS, CATCH BASINS AND MANHOLES CONSTRUCTED AS A PART OF THIS PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE BUCKEYE WATER DISTRICT.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE RESIDENT ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 AND/OR 638 ITEMS.

ITEM 611 – 12", 15", 18" CONDUIT, TYPE B OR TYPE C, AS PER PLAN

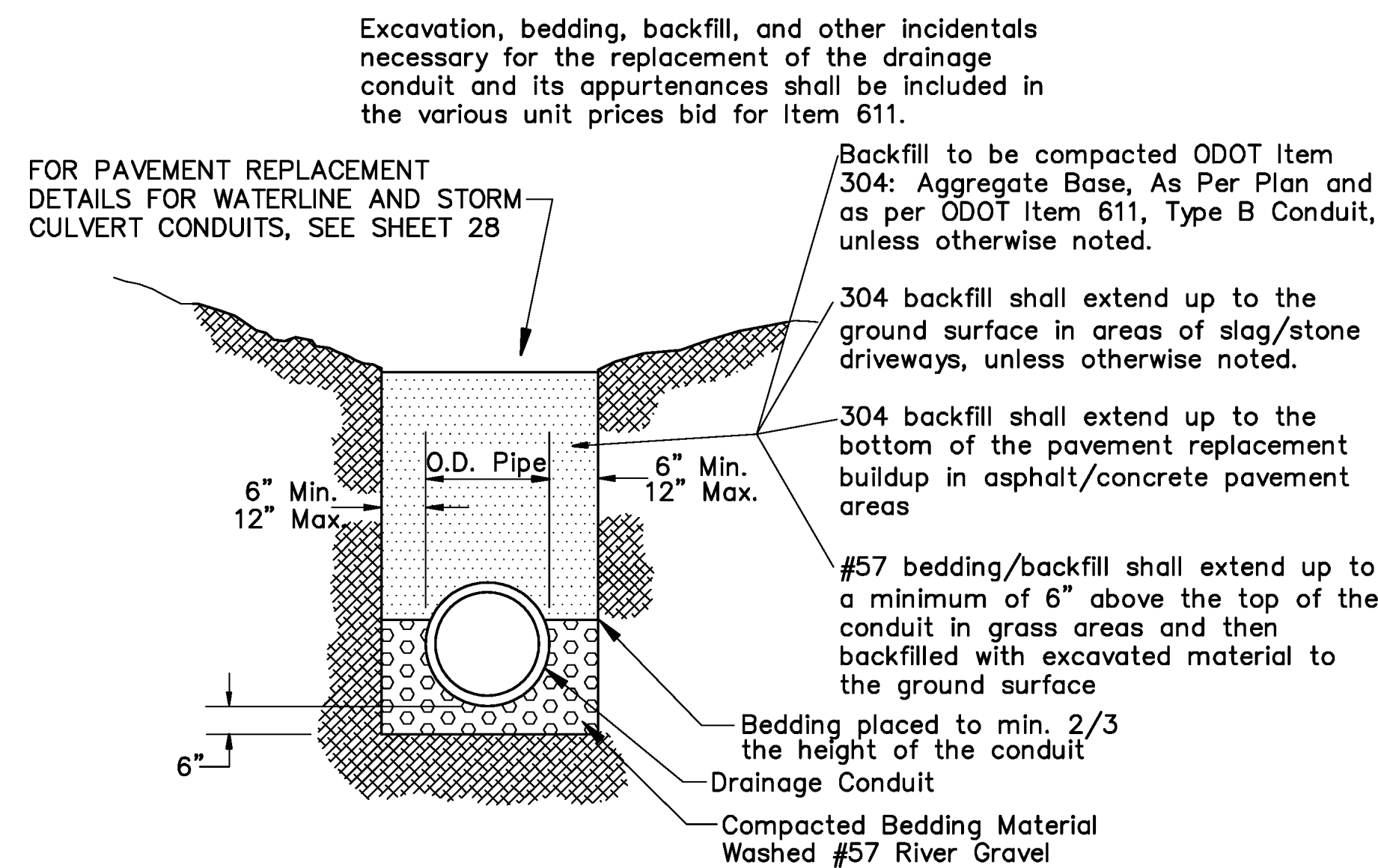
DRAINAGE CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH ITEM 611 OF THE ODOT C&MS AND WITH THE SPECIFIED NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS.

ACCEPTABLE TYPE B & TYPE C CONDUITS FOR THIS PROJECT WILL BE ODOT 707.33 CONDUIT (CORRUGATED POLYETHYLENE SMOOTH LINE PIPE) AND ODOT 706.02 CONDUIT (REINFORCED CONCRETE PIPE); NO OTHER TYPE B CONDUITS AS LISTED IN ODOT ITEM 611 WILL BE ACCEPTABLE.

AS DESCRIBED IN THE "UNRECORDED STORM WATER DRAINAGE" NOTE ON THIS SHEET, IF ODOT 707.33 CONDUIT MATERIAL IS REQUIRED TO BE USED, THE CONDUIT SHALL HAVE BELL AND SPIGOT PUSH-ON JOINTS WITH GASKETS CONFORMING TO ASTM F477. NO OTHER METHODS OF JOINING THE AFOREMENTIONED CONDUIT WILL BE ACCEPTED EXCEPT WHERE MASONRY COLLARS ARE NECESSARY TO CONNECT TO ANY EXISTING CONDUIT.

AS DESCRIBED IN THE "UNRECORDED STORM WATER DRAINAGE" NOTE ON THIS SHEET, IF ODOT 706.02 CONDUIT MATERIAL IS REQUIRED TO BE USED, THE BELL & SPIGOT OF THE CONDUITS SHALL BE JOINED WITH RESILIENT AND FLEXIBLE GASKET JOINTS IN ACCORDANCE WITH ODOT 706.11 AND ASTM C443. NO OTHER METHODS OF JOINING THE AFOREMENTIONED CONDUIT WILL BE ACCEPTED EXCEPT WHERE MASONRY COLLARS ARE NECESSARY TO CONNECT TO ANY EXISTING CONDUIT.

SPECIAL NOTE FOR ITEM 611 AND ITEM 638:
 THE CONTRACTOR WILL NOT BE REQUIRED TO PROVIDE VIDEO PERFORMANCE INSPECTION OF THE CONDUITS PER SECTION 611.02 OF THE ODOT C&MS. THE CONTRACTOR WILL ALSO NOT BE REQUIRED TO PERFORM COMPACTION TESTING WITHIN THE WATERLINE TRENCHES OR WITHIN ANY DRAINAGE CONDUIT TRENCH PER SECTION 611.06 AND SUPPLEMENT 1015. IN ADDITION, THE CONTRACTOR WILL NOT BE REQUIRED TO PROVIDE AN INSTALLATION PLAN FOR THE WATERLINE OR DRAINAGE CONDUIT PER SECTION 611.04-B.



**TRENCH DETAIL
 ROADWAY, DRIVEWAY, AND LAWN AREA CULVERT REPLACEMENT**

RECORDED STORM WATER DRAINAGE

RECORDED EXISTING DRAINAGE FACILITIES HAVE BEEN SHOWN IN THEIR APPROXIMATE LOCATION ON THE PLAN AND PROFILE SHEETS. UNLESS SPECIFICALLY CALLED FOR REMOVAL AND REPLACEMENT, ALL DRAINAGE FACILITIES SHALL BE PROTECTED BY THE CONTRACTOR.

ANY RECORDED EXISTING DRAINAGE FACILITIES LOCATED OUTSIDE OF THE TRENCH LIMITS AND/OR WORK LIMITS WHICH ARE DISTURBED OR DAMAGED BY THE CONTRACTOR, AND ANY RECORDED DRAINAGE FACILITIES LOCATED INSIDE THE WORK LIMITS THAT CAN BE PROTECTED, BUT ARE DISTURBED OR DAMAGED BY THE CONTRACTOR, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND AS DIRECTED BY THE RESIDENT ENGINEER.

ALL EQUIPMENT, MATERIALS, LABOR, AND INCIDENTALS NECESSARY FOR THE REMOVAL AND REPLACEMENT OF EXISTING STORM CONDUIT INCLUDING BUT NOT LIMITED TO: REMOVAL OF THE EXISTING CONDUIT, EXCAVATION, BEDDING, PROVIDING AND PLACEMENT OF THE NEW CONDUIT, BACKFILL, ETC., SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 611 ITEMS.

UNRECORDED STORM WATER DRAINAGE

IF ANY UNRECORDED EXISTING ROADWAY/DRIVEWAY DRAINAGE CULVERTS ENCOUNTERED WITHIN THE TRENCH DURING INSTALLATION OF THE PROPOSED WATERLINE FACILITIES THAT ARE NOT IDENTIFIED FOR REMOVAL AND REPLACEMENT ON THE PLAN SHEETS BUT WILL BE IMPACTED, THEN AT THE DIRECTION OF AND IN COORDINATION WITH THE RESIDENT ENGINEER, THE FUNCTIONALITY OF THE CULVERT SHALL BE DETERMINED. IF THE CULVERT IS DETERMINED TO BE FUNCTIONAL, THE CONTRACTOR SHALL REMOVE AND REPLACE THE DISTURBED CULVERT AT THE DIRECTION OF THE RESIDENT ENGINEER. IF THE CULVERT IS DETERMINED TO BE NONFUNCTIONAL, THE CONTRACTOR SHALL REMOVE THE CONDUIT ONLY AND NOT REPLACE IT.

IF ANY UNRECORDED EXISTING STORM SEWER CONDUITS ARE ENCOUNTERED WITHIN THE TRENCH DURING INSTALLATION OF THE PROPOSED WATERLINE FACILITIES THAT ARE NOT IDENTIFIED ON THE PLAN SHEETS, THEN AT THE DIRECTION OF AND IN COORDINATION WITH THE THE RESIDENT ENGINEER, THE FUNCTIONALITY OF THE CONDUIT SHALL BE DETERMINED. IF THE CONDUIT IS DETERMINED FUNCTIONAL, THE CONTRACTOR SHALL REPLACE THE DISTURBED CONDUIT AT THE DIRECTION OF THE RESIDENT ENGINEER, AND THE WATERLINE ROUTING SHALL BE ADJUSTED TO AVOID THE CONDUIT. IF THE CONDUIT IS DETERMINED TO BE NONFUNCTIONAL, THE CONTRACTOR SHALL PLUG THE END(S) OF THE EXPOSED CONDUIT WITH CONCRETE, AND THE WATERLINE ROUTING SHALL CONTINUE TO BE INSTALLED WITH NO NEED FOR ADJUSTMENT.

EXISTING ROADWAY/DRIVEWAY DRAINAGE CULVERTS ENCOUNTERED WITHIN THE TRENCH THAT ARE 12" OR SMALLER IN DIAMETER SHALL BE REPLACED WITH A NEW 12" DIAMETER CONDUIT, AS PRACTICAL. EXISTING ROADWAY/DRIVEWAY DRAINAGE CULVERTS AND EXISTING STORM SEWER CONDUITS ENCOUNTERED OVER 12" IN DIAMETER SHALL BE REPLACED WITH A NEW CONDUIT THAT MATCHES THE SIZE OF THE EXISTING CONDUIT. REMOVAL OF THE EXISTING CONDUIT SHALL BE IN ACCORDANCE WITH ITEM 202 OF THE ODOT C&MS, AND PLACEMENT OF THE NEW CONDUIT SHALL BE IN ACCORDANCE WITH THE SPECIFIED NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS AND WITH ITEM 611 OF THE ODOT C&MS.

ANY UNRECORDED DRAINAGE FACILITIES THAT CROSS PERPENDICULAR TO THE TRENCH WHICH ARE DISTURBED/DAMAGED AND WHICH ARE DETERMINED TO BE FUNCTIONAL SHALL BE REPLACED WITH THE MATCHING SIZE CONDUIT AND RECONNECTED TO THE EXISTING CONDUIT AT EACH END WITH FERNCO COUPLINGS AND CONCRETE COLLARS.

ANY UNRECORDED EXISTING DRAINAGE FACILITIES LOCATED OUTSIDE OF THE TRENCH LIMITS AND/OR WORK LIMITS WHICH ARE DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND AS DIRECTED BY THE RESIDENT ENGINEER.

ALL EQUIPMENT, MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO PERFORM THE AFOREMENTIONED WORK INCLUDING BUT NOT LIMITED TO: REMOVAL OF THE EXISTING CONDUIT, EXCAVATION, BEDDING, PROVIDING AND PLACEMENT OF THE NEW CONDUIT, BACKFILL, PLUGGING OF ANY EXISTING CONDUITS, FERNCO COUPLINGS, CONCRETE COLLARS, ETC. SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONTINGENCY QUANTITIES LISTED BELOW.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE.

ITEM 611 – 12" CONDUIT, TYPE B, AS PER PLAN	100 FOOT
ITEM 611 – 12" CONDUIT, TYPE C, AS PER PLAN	100 FOOT
ITEM 611 – 15" CONDUIT, TYPE B, AS PER PLAN	100 FOOT
ITEM 611 – 15" CONDUIT, TYPE C, AS PER PLAN	100 FOOT
ITEM 611 – 18" CONDUIT, TYPE B, AS PER PLAN	100 FOOT
ITEM 611 – 18" CONDUIT, TYPE C, AS PER PLAN	100 FOOT

MISCELLANEOUS UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, ETC. DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSERVED CONTINUANCE BY CONNECTING A CONDUIT INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE RESIDENT ENGINEER.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 (NON- PERFORATED), 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, AND 707.52 (SDR 35).

ANY UNRECORDED EXISTING DRAINAGE FACILITIES LOCATED OUTSIDE OF THE TRENCH LIMITS AND/OR WORK LIMITS WHICH ARE DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AS DIRECTED BY THE RESIDENT ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE RESIDENT ENGINEER FOR THE WORK NOTED ABOVE.

ITEM 611 – 4" CONDUIT, TYPE C	100 FOOT
ITEM 611 – 6" CONDUIT, TYPE C	100 FOOT

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE RESIDENT ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE RESIDENT ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 AND/OR 638 ITEMS.

ITEM 832 – TEMPORARY EROSION CONTROL

THE CONTRACTOR SHALL PROVIDE THE NECESSARY TEMPORARY EROSION CONTROL ITEMS DURING CONSTRUCTION AND SHALL BE IN GENERAL ACCORDANCE WITH THE PERTINENT SECTIONS OF ODOT SUPPLEMENTAL SPECIFICATION ITEM 832 AS WELL AS THE PERTINENT ODOT STANDARD CONSTRUCTION DRAWINGS. ROCK OF A STABLE NATURE SHALL NOT BE REMOVED TO PLACE ANY OF THESE ITEMS.

THE CONTRACTOR SHALL REFER TO THE SWP3 PROVIDED IN THE CONSTRUCTION PLANS. TEMPORARY EROSION CONTROL SHALL BE AS DIRECTED BY THE ENGINEER. ALL COSTS FOR TEMPORARY EROSION CONTROL SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 832: TEMPORARY EROSION CONTROL. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 832 TEMPORARY EROSION CONTROL, AS PER PLAN LUMP SUM

ITEM 659 – SEEDING AND MULCHING, AS PER PLAN

SEEDING & MULCHING, COMMERCIAL FERTILIZER, AND WATER SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT OF WAY LINES, AND FOR AREAS OUTSIDE THE RIGHT OF WAY LINES COVERED BY WORK AGREEMENT OR UTILITY EASEMENT. NO WORK SHALL BE PERFORMED OUTSIDE THE EXISTING ROAD RIGHT OF WAY EXCEPT WHERE AN EASEMENT OR A WORK AGREEMENT HAS BEEN ACQUIRED BY THE CONTRACTOR AND FIRST ACCEPTED BY THE BWD.

FINAL SEEDING & MULCHING, COMMERCIAL FERTILIZER, AND WATER SHALL BE APPLIED BY HYDRO SEEDING EXCEPT IN AREAS THAT WILL ONLY ALLOW FOR IT TO BE PLACED BY HAND METHODS.

ALL SEEDING SHALL BE A SEED MIX UTILIZED FOR RESIDENTIAL LAWN.

SEEDING QUANTITIES ARE BASED UPON A MAXIMUM (12) FEET DISTURBANCE WIDTH.

AREAS REQUIRING PLACEMENT OF SEEDING & MULCHING WILL BE AS DIRECTED BY THE ENGINEER. ALL OF THE AFOREMENTIONED SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 659: SEEDING & MULCHING, AS PER PLAN. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 659 SEEDING AND MULCHING, AS PER PLAN 18,600 S.Y.

ITEM 659 – TOPSOIL

WITHIN THE COUNTRY ESTATES AND FREDERICK HEIGHTS SUBDIVISIONS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE AND PLACE TOPSOIL TO ANY AREAS OF DISTURBED EARTH THAT WILL REQUIRE SEEDING AND MULCHING; TOPSOIL PLACEMENT AND MATERIAL SHALL BE IN ACCORDANCE WITH ITEM 659 OF THE ODOT C&MS AND SHALL BE PLACED AT A MINIMUM OF 4" THICK. THE PROVIDING AND PLACEMENT OF TOPSOIL WILL BE AS DIRECTED BY THE ENGINEER AND SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 659: TOPSOIL, AS PER PLAN. EXISTING TOPSOIL THAT IS REMOVED DURING CLEARING AND GRUBBING AND/OR EXCAVATION OF THE PROPOSED WATERLINE TRENCH SHALL BE REMOVED FROM THE SITE AND WILL NOT BE REUSED AS PART OF THIS ITEM.

TOPSOIL QUANTITIES ARE BASED UPON A MAXIMUM (12) FEET DISTURBANCE WIDTH.

TOPSOIL SHALL NOT BE PLACED WITHIN THE LIMITS OF ANY "DITCHES", BUT SHALL BE PLACED WITHIN THE LIMITS OF ALL "SWALES".

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 659 TOPSOIL, AS PER PLAN 1,700 C.Y.

ITEM 670 – DITCH EROSION PROTECTION

THE CONTRACTOR SHALL PROVIDE THE NECESSARY DITCH EROSION PROTECTION FOR ALL "DITCHES" RE-ESTABLISHED DURING TRENCH OPERATIONS. DITCH EROSION PROTECTION WILL NOT BE REQUIRED WITHIN "SWALE" AREAS.

QUANTITIES FOR DITCH EROSION PROTECTION ARE BASED UPON A (5) FOOT WIDTH (1' WIDE DITCH FLOWLINE AND 2' UP THE DITCH FORESLOPE & BACKSLOPE), AND SHALL INCLUDE ONLY THE MATTING FOR DITCH EROSION PROTECTION. SEEDING & MULCHING, AS PER PLAN WILL BE PAID FOR SEPARATELY.

DITCH EROSION PROTECTION SHALL BE PERFORMED IN ACCORDANCE WITH ITEM 670 OF THE ODOT C&MS.

AREAS REQUIRING PLACEMENT OF DITCH EROSION PROTECTION SHALL BE AS DIRECTED BY THE ENGINEER. DITCH EROSION PROTECTION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 670: DITCH EROSION PROTECTION, AS PER PLAN. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 670 DITCH EROSION PROTECTION, AS PER PLAN 3,700 S.Y.

PLAN AND PROFILE NOTES

THE FOLLOWING NOTES PERTAIN TO ALL PLAN AND PROFILE SHEETS.

ALL STATIONING SHOWN IS BASED UPON THE APPROXIMATE CENTERLINE OF ROADWAY PAVEMENT.

THE CONTRACTOR SHALL ADHERE TO SECTION 107.10 OF THE ODOT C&MS FOR THE PROTECTION AND RESTORATION OF PROPERTY. SEE ADDITIONAL MISCELLANEOUS RESTORATION NOTES ON THE WATERLINE GENERAL NOTES SHEET AND SEE BELOW FOR NOTES ON UTILITY LOCATIONS.

THE CONTRACTOR SHALL PROTECT ALL DRAINAGE DITCHES, DRAINAGE CULVERTS, DRAINAGE STRUCTURES, AND STORM SEWERS, WHETHER PUBLIC OR PRIVATE, WITHIN THE PROJECT LIMITS DURING CONSTRUCTION; ANY DAMAGE OR DISTURBANCE OF THE AFOREMENTIONED BY THE CONTRACTOR SHALL BE REPAIRED TO ITS ORIGINAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE UNLESS SEPARATELY ITEMIZED FOR REMOVAL AND REPLACEMENT AND/OR AS COVERED IN THE "UNRECORDED STORM WATER DRAINAGE" NOTES AND THE "RECORDED STORM WATER DRAINAGE" NOTES ON SHEET 4.

RESTORATION OF ALL DRAINAGE DITCHES SHALL BE PERFORMED IN GENERAL ACCORDANCE WITH THE DITCH RESTORATION DETAIL ON THIS SHEET, AS PRACTICAL.

THE CONTRACTOR SHALL PROTECT THE EXISTING ROADWAY PAVEMENT DURING CONSTRUCTION; ANY DAMAGE TO THE EXISTING ROADWAY PAVEMENT BY THE CONTRACTOR SHALL BE REPAIRED TO ITS ORIGINAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.

SEE "MAINTAINING ROADWAY AND DRIVEWAY PAVEMENT SURFACES" NOTES LOCATED ON THE MAINTENANCE OF TRAFFIC GENERAL NOTES SHEET RELATIVE TO THE MAINTAINING OF ALL ROADWAY AND DRIVEWAY PAVEMENT SURFACES DURING WATERLINE INSTALLATION WITHIN ANY EXISTING ROADWAY AND DRIVEWAY PAVEMENTS.

THE CONTRACTOR SHALL USE THE NECESSARY HORIZONTAL BENDS TO MAINTAIN THE PROPOSED WATERLINE AT THE SPECIFIED DISTANCE OFF OF THE EXISTING PAVEMENT CENTERLINE OR OFF OF THE EXISTING EDGE OF PAVEMENT AS SHOWN IN THE PLAN VIEW ON THE PLAN AND PROFILE SHEETS. ALL COSTS ASSOCIATED WITH THE AFOREMENTIONED SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE WATERLINE AS FURTHER DETAILED IN THE WATERLINE GENERAL NOTES ON SHEET 27.

THE CONTRACTOR SHALL USE THE NECESSARY VERTICAL BENDS TO MAINTAIN A MINIMUM OF 4 FEET OF COVER BELOW THE EXISTING GRADE, THE EXISTING DITCH FLOWLINE, OR THE EXISTING EDGE OF PAVEMENT (WHICHEVER IS LOWEST) ALONG THE ENTIRE LENGTH OF THE PROPOSED WATERLINE AND TO MAINTAIN THE NECESSARY VERTICAL CLEARANCES WHEN CROSSING EXISTING UNDERGROUND UTILITIES AND/OR DRAINAGE CONDUITS OR CHANNELS. ALL COSTS ASSOCIATED WITH THE AFOREMENTIONED SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE WATERLINE AS FURTHER DETAILED IN THE WATERLINE GENERAL NOTES ON SHEET 27.

EXISTING UTILITIES SHOWN ON THE PLAN AND PROFILE SHEETS ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION AND LOCATION OF ALL UTILITIES PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITY POLES, GUY ANCHORS, AND SUPPORTS DURING INSTALLATION OF THE PROPOSED WATERLINE.

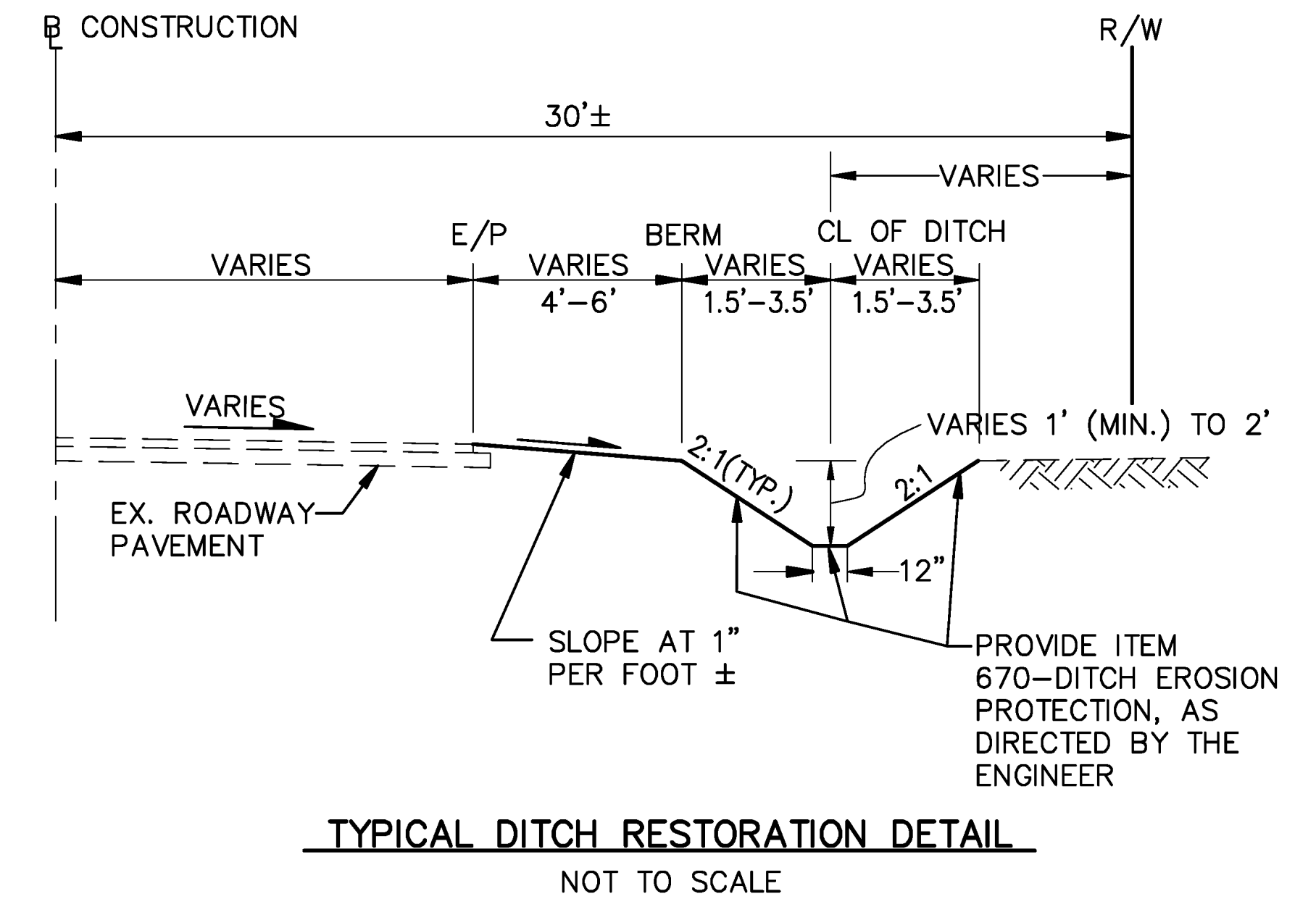
VIDEO RECORDING OF CONSTRUCTION CORRIDORS

CONSTRUCTION IN ANY AREA SHALL NOT START UNTIL THE AREA HAS BEEN VIDEO RECORDED AND THE RECORDINGS HAVE BEEN SUBMITTED. SEE SECTION G.49 OF THE GENERAL CONDITIONS IN THE PROJECT MANUAL FOR ADDITIONAL INFORMATION.

THE CONTRACTOR SHALL PROVIDE ALL OF THE NECESSARY LABOR, TOOLS, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE VIDEO RECORDING WITHIN THE CONSTRUCTION CORRIDOR OF THE PROJECT. ALL COSTS SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE WATERLINE.

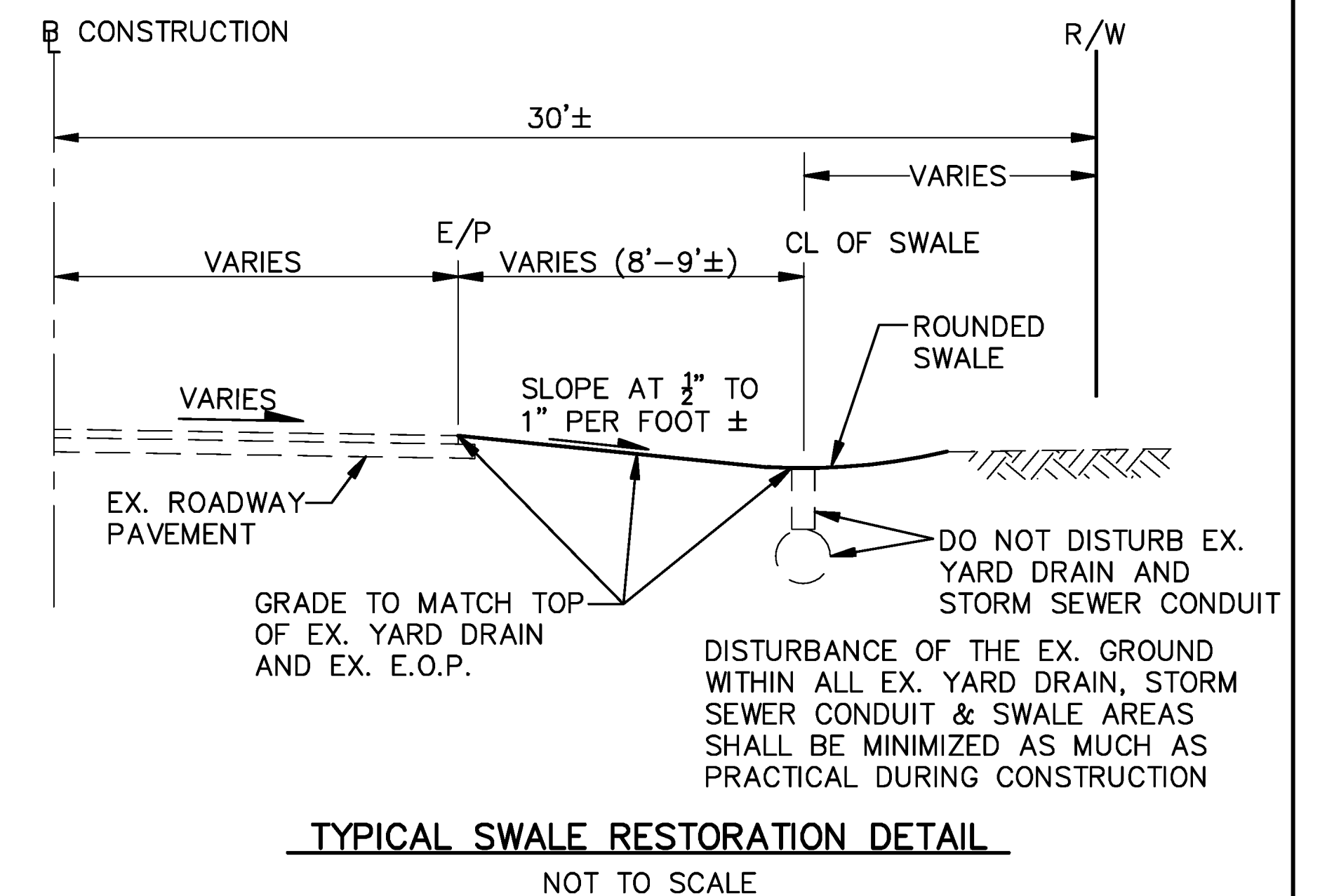
THIS DETAIL IS SHOWN FOR GUIDANCE PURPOSES ONLY AS IT RELATES TO THE RESTORATION OF ANY ROADWAY DITCHES THAT MAY BE DISTURBED DURING WATERLINE INSTALLATION AND REPRESENT TYPICAL MINIMUM STANDARDS.

ACTUAL DITCH RESTORATION SHALL BE COORDINATED WITH THE PRE-CONSTRUCTION VIDEO TAKEN FOR THE PROJECT.



TYPICAL DITCH RESTORATION DETAIL
NOT TO SCALE

THIS DETAIL IS SHOWN FOR GUIDANCE PURPOSES ONLY AS IT RELATES TO THE RESTORATION OF ANY ROADWAY SWALES THAT MAY BE DISTURBED DURING WATERLINE INSTALLATION. ACTUAL SWALE RESTORATION SHALL BE COORDINATED WITH THE PRE-CONSTRUCTION VIDEO TAKEN FOR THE PROJECT.



TYPICAL SWALE RESTORATION DETAIL
NOT TO SCALE

ODOT: J.F.B. DATE: 2/21
 CHKD: BY: D.G.D. DATE: 2/21
 GENERAL NOTES
 OLD FREDERICKTOWN ROAD WATERLINE EXTENSION
 5/30

MAINTAINING TRAFFIC GENERAL NOTES

SEVEN (7) DAYS PRIOR TO THE COMMENCEMENT OF THE PROJECT, THE CONTRACTOR SHALL CONTACT IN WRITING THE DISTRICT MANGER OF THE BUCKEYE WATER DISTRICT SO THAT THE LOCAL TRAVELING PUBLIC CAN BE INFORMED OF THE IMPENDING WORK. THE CONTRACTOR SHALL ALSO NOTIFY THE ST. CLAIR TOWNSHIP TRUSTEES, ST. CLAIR TOWNSHIP POLICE DEPARTMENT, COLUMBIANA COUNTY ENGINEER'S OFFICE, AND COLUMBIANA COUNTY SHERIFF'S DEPARTMENT.

DRIVEWAYS SHALL BE KEPT OPEN AT ALL TIMES. THE CONTRACTOR SHALL NOTIFY THE HOMEOWNERS AT LEAST ONE (1) DAY IN ADVANCE OF CROSSING THEIR DRIVEWAY SO THAT THE HOMEOWNER CAN PLAN AHEAD FOR ACCESS INTO AND OUT OF THEIR DRIVEWAY, AS NECESSARY.

DURING WATERLINE IMPROVEMENTS ALONG THE LENGTH OF THE PROJECT, THE CONTRACTOR SHALL ZONE OFF ONLY THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAYS TIME.

ALONG OLD FREDERICKTOWN ROAD AT THE WOODLAWN DRIVE INTERSECTION (COUNTRY ESTATES SUBDIVISION), "ROAD WORK AHEAD", "FLAGGER AHEAD", AND "END ROAD WORK" SIGNS SHALL BE INSTALLED ON PERMANENT SIGN SUPPORTS, INSTALLED AT THE PROPER LOCATIONS TO THE NORTH AND SOUTH OF THE INTERSECTION AND SHALL REMAIN FOR THE DURATION OF THE PROJECT.

ALONG OLD FREDERICKTOWN ROAD AT THE NORTH PARK CIRCLE & SOUTH PARK CIRCLE INTERSECTIONS (FREDERICK HEIGHTS SUBDIVISION), "ROAD WORK AHEAD", "FLAGGER AHEAD", AND "END ROAD WORK" SIGNS SHALL BE INSTALLED ON PERMANENT SIGN SUPPORTS, INSTALLED AT THE PROPER LOCATIONS TO THE NORTH AND SOUTH OF THE INTERSECTIONS, AND SHALL REMAIN FOR THE DURATION OF THE PROJECT.

WITHIN EACH SUBDIVISION, "ROAD WORK AHEAD" AND "FLAGGER AHEAD" SIGNS WILL BE PERMITTED TO BE PLACED ON TEMPORARY SIGN SUPPORTS.

THE CONTRACTOR IS PERMITTED TO PERFORM WORK SIMULTANEOUSLY IN DIFFERENT WORK ZONES. EACH DAY, ALL M.O.T. SIGNING, DRUMS, ETC. MUST BE SET UP BASED UPON THE SPECIFIC LOCATION(S) WHERE WORK WILL BE PERFORMED FOR THAT DAY (I.E. ROAD WORK AHEAD SIGNS, FLAGGER AHEAD SIGNS, ETC. SHOULD BE WITHIN THE DISTANCE CALLED FOR IN THE ODOT STANDARD DRAWINGS). AFTER EACH DAYS WORK, ALL M.O.T. AND EQUIPMENT SHALL BE REMOVED FROM THE ROADWAY AND/OR ROAD RIGHT OF WAY AND ALL TRENCHES SHALL BE PROPERLY BACKFILLED AS FURTHER DETAILED. ALL TRENCHES LOCATED WITHIN ROADWAY PAVEMENT OR DRIVEWAYS SHALL BE MAINTAINED IN ACCORDANCE WITH THE MAINTAINING ROADWAY/DRIVEWAY PAVEMENT SURFACES NOTES ON THIS SHEET.

THE CONTRACTOR SHALL PROVIDE FLAGGERS IN ACCORDANCE WITH THE ODOT STANDARD DRAWINGS LISTED ON THE TITLE SHEET AND WITH ITEM 614 OF THE ODOT C&MS. A MINIMUM OF TWO FLAGGERS SHALL BE PROVIDED WITH RADIOS, ETC. AT ALL TIMES.

A MINIMUM OF ONE LANE, TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY THE USE OF THE EXISTING PAVEMENT.

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

THE CONTRACTOR SHALL DESIGNATE A QUALIFIED INDIVIDUAL, OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE RESIDENT ENGINEER, TO PERIODICALLY INSPECT, DOCUMENT, REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL INSPECT, DOCUMENT, REPAIR AND/OR REPLACE ALL TRAFFIC CONTROL DEVICES AT THE BEGINNING AND END OF EACH WORK DAY, AND AT LEAST ONCE DURING THE DAY WHILE WORK IS BEING CONDUCTED ON THE PROJECT.

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

ITEM 614 MAINTAINING TRAFFIC LUMP SUM

SEQUENCE OF OPERATIONS

THE CONTRACTOR SHALL SUBMIT, IN WRITING, A SCHEDULE TO THE RESIDENT ENGINEER AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL NOTIFY ALL OF THE AFOREMENTIONED AGENCIES.

PAYMENT FOR THE AFOREMENTIONED SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614--MAINTAINING TRAFFIC.

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE/SHE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC AND/OR SEQUENCE OF OPERATIONS, PROVIDED THAT THE MAINTAINING TRAFFIC PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN WILL BE PUT INTO EFFECT UNTIL THE PROPER APPROVAL HAS BEEN GRANTED, IN WRITING, BY THE BUCKEYE WATER DISTRICT AND THE RESIDENT CONSTRUCTION ENGINEER.

PAYMENT FOR THE AFOREMENTIONED SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614--MAINTAINING TRAFFIC.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE
CONTRACTOR'S MATERIALS - STORAGE

IN ADDITION TO THE REQUIREMENTS OF ITEM 614 OF THE CONSTRUCTION & MATERIALS SPECIFICATIONS, THE FOLLOWING ADDITIONAL REQUIREMENTS SHALL APPLY RELATIVE TO THE CONTRACTOR'S OPERATION & STORAGE OF EQUIPMENT AND STORAGE OF MATERIALS.

THE CONTRACTOR'S EQUIPMENT SHALL BE OPERATED IN THE DIRECTION OF TRAFFIC WHERE PRACTICAL. A FLAGGER SHALL BE USED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT.

AFTER EACH WORK DAY, ON WEEKENDS, OR OTHER TIMES OF SUSPENSION OF WORK, THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA REMOVED FROM THE ROAD RIGHT OF WAYS.

ALL MATERIALS SHALL BE STORED AT A STORAGE AREA REMOVED FROM THE ROAD RIGHT OF WAYS. STOCKPILING OF MATERIALS WITHIN THE ROADWAY PAVEMENT AND/OR WITHIN THE ROAD RIGHT OF WAY DURING CONSTRUCTION WILL NOT BE PERMITTED.

RELATIVE TO THE STORAGE AREA(S) TO BE UTILIZED FOR EQUIPMENT & MATERIALS, THE CONTRACTOR SHALL PREPARE THE NECESSARY PERMISSION AGREEMENTS, HAVE THEM SIGNED BY THE PROPERTY OWNER(S), AND SHALL PROVIDE COPIES OF THE PERMISSION AGREEMENTS TO THE RESIDENT ENGINEER PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

PAYMENT FOR THE AFOREMENTIONED SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614--MAINTAINING TRAFFIC.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER DURING CONSTRUCTION FOR DUST CONTROL IN AREAS AS DIRECTED BY THE ENGINEER. IN ADDITION, THE CONTRACTOR SHALL PROVIDE A DUST PALLIATIVE USING CALCIUM CHLORIDE FOR DUST CONTROL WITHIN PAVEMENT AREAS AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITIES FOR DUST CONTROL HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 616 WATER 25 M GAL.
ITEM 616 CALCIUM CHLORIDE 1.5 TON

MAINTAINING ROADWAY AND DRIVEWAY PAVEMENT SURFACES

RELATIVE TO TRENCHES WITHIN ROADWAY PAVEMENT AREAS, UPON COMPLETION OF EACH DAYS WORK, THE REMAINING PORTION OF THE TRENCH WHICH IS TO RECEIVE THE PROPOSED PAVEMENT REPLACEMENT SHALL BE TEMPORARILY BACKFILLED WITH ITEM 304: AGGREGATE BASE, AS PER PLAN TO 3" BELOW THE TOP OF THE EXISTING PAVEMENT SURFACE. THEN 3" OF ITEM 301: ASPHALT CONCRETE BASE SHALL BE PLACED TO THE SURFACE OF THE EXISTING ROADWAY PAVEMENT. THIS WILL BE USED AS TEMPORARY PAVEMENT IN ORDER TO MAINTAIN TRAFFIC WITHIN THE TRENCH UNTIL THE PROPOSED WATERLINE HAS BEEN TESTED AND DISINFECTED.

AS NOTED IN THE TYPICAL PAVEMENT REPLACEMENT AND TRENCH DETAIL SHOWN ON THE WATERLINE NOTES AND DETAIL SHEETS, ALL TRENCHES WITHIN ROADWAY PAVEMENT AREAS ARE TO RECEIVE 6" OF ITEM 305: CONCRETE BASE, CLASS QC MS, AS PER PLAN AND 3" OF ASPHALT OVERLAY.

UPON COMPLETION OF THE TESTING AND DISINFECTION OF THE PROPOSED WATERLINE, THE CONTRACTOR SHALL EXCAVATE THE TEMPORARY ASPHALT CONCRETE BASE AND AGGREGATE BASE OUT OF THE TRENCH TO THE BOTTOM OF THE PROPOSED ITEM 305: CONCRETE BASE, CLASS QC MS, AS PER PLAN DEPTH.

PRIOR TO THE PLACEMENT OF THE CONCRETE BASE WITHIN THE TRENCH LIMITS, THE CONTRACTOR SHALL ENSURE THAT PROPER BUTT JOINTS ARE PROVIDED FOR THE TRENCHES BY WAY OF SAWCUTTING. THE BUTT JOINTS OF THE TRENCH SHALL BE SAWCUT TO ALLOW FOR A MINIMUM (12") EXTENSION OF THE CONCRETE BASE ON EACH SIDE OF THE TRENCH. THE SUBGRADE SHALL BE PROPERLY COMPACTED, AND THE PROPOSED CONCRETE BASE SHALL BE PERFORMED INCLUDING ALL NECESSARY CONTRACTION JOINTS IN ACCORDANCE WITH THE "ITEM 305: CONCRETE BASE, CLASS QC MS, AS PER PLAN" NOTES ON SHEET 4 AND WITH THE PAVEMENT REPLACEMENT DETAILS ON SHEET 28.

UPON COMPLETION OF THE PLACEMENT OF THE CONCRETE BASE, THE CONTRACTOR SHALL IMMEDIATELY PLACE STEEL PLATES OVER TOP OF THE TRENCH TO PERMIT TRAFFIC UNTIL THE CONCRETE HAS SET UP AND UNTIL THE ASPHALT OVERLAY IS PLACED. STEEL PLATES WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614--MAINTAINING TRAFFIC.

AFTER TWO (2) OR THREE (3) WORKING DAYS (BUT LESS THAN ONE WEEK) OF THE PLACEMENT OF THE CONCRETE BASE, THE STEEL PLATES SHALL BE REMOVED, AND THE FINAL 3" OF ASPHALT OVERLAY SHALL BE PLACED ON TOP OF THE CONCRETE BASE WITHIN THE TRENCH LIMITS. THE CONTRACTOR SHALL PLACE THE SPECIFIED AMOUNT OF TACK COAT ON TOP OF THE CONCRETE BASE AND UP AGAINST THE EXISTING ASPHALT AND/OR CHIP AND SEAL PAVEMENT AT THE BUTT JOINTS. ALL BUTT JOINTS ARE TO BE SEALED UPON COMPLETION OF THE ASPHALT OVERLAY.

THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAY TRENCHES UNTIL THE PROPOSED CONCRETE BASE AND ASPHALT OVERLAY HAVE BEEN COMPLETED. STEEL PLATES SHALL BE AVAILABLE AT ALL TIMES TO ALLOW FOR ACCESS BY TRAFFIC.

RELATIVE TO TRENCHES WITHIN ASPHALT OR CONCRETE DRIVEWAYS, UPON COMPLETION OF EACH DAYS WORK, THE REMAINING PORTION OF THE TRENCH WHICH IS TO RECEIVE THE PROPOSED PAVEMENT REPLACEMENT SHALL CONTINUE TO BE BACKFILLED WITH ITEM 304: AGGREGATE BASE, AS PER PLAN TO THE SURFACE OF THE EXISTING DRIVEWAY PAVEMENT UNTIL THE PROPOSED WATERLINE HAS BEEN TESTED AND DISINFECTED.

UPON COMPLETION OF THE TESTING AND DISINFECTION OF THE PROPOSED WATERLINE, THE CONTRACTOR SHALL EXCAVATE THE TEMPORARY AGGREGATE BASE OUT OF THE TRENCH TO THE BOTTOM OF THE PROPOSED PAVEMENT REPLACEMENT DEPTH (I.E. 3" MIN. FOR ASPHALT DRIVES AND 6" MIN. FOR CONCRETE DRIVES) AND SHALL REMOVE THE REMAINING EXISTING DRIVEWAY APPROACH PAVEMENT BETWEEN THE TRENCH AND THE EDGE OF ROADWAY PAVEMENT; ALL BUTT JOINTS SHALL BE PROPERLY SAWCUT; THE SUBGRADE SHALL BE PROPERLY COMPACTED; AND THE PROPOSED PAVEMENT REPLACEMENT FOR THE ENTIRE DRIVEWAY APPROACH SHALL BE PERFORMED.

THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL DRIVEWAY TRENCHES UNTIL THE PROPOSED PAVEMENT REPLACEMENT HAS BEEN COMPLETED. STEEL PLATES SHALL BE AVAILABLE AT ALL TIMES TO ALLOW FOR ACCESS BY THE RESIDENCES.

ALL EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS NECESSARY FOR THE PROPER PLACEMENT, REMOVAL, AND DISPOSAL OF THE TEMPORARY ITEM 301: ASPHALT CONCRETE BASE AND ITEM 304: AGGREGATE BASE, AS PER PLAN SHALL BE INCLUDED IN THE RESPECTIVE UNIT PRICES BID FOR EACH ITEM BELOW. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 301: ASPHALT CONCRETE BASE FOR MAINTAINING PAVEMENT SURFACE, AS PER PLAN 55 C.Y.
ITEM SPECIAL: PLACEMENT, REMOVAL, AND DISPOSAL OF AGGREGATE BASE FOR MAINTAINING PAVEMENT SURFACE, AS PER PLAN 1,364 S.Y.

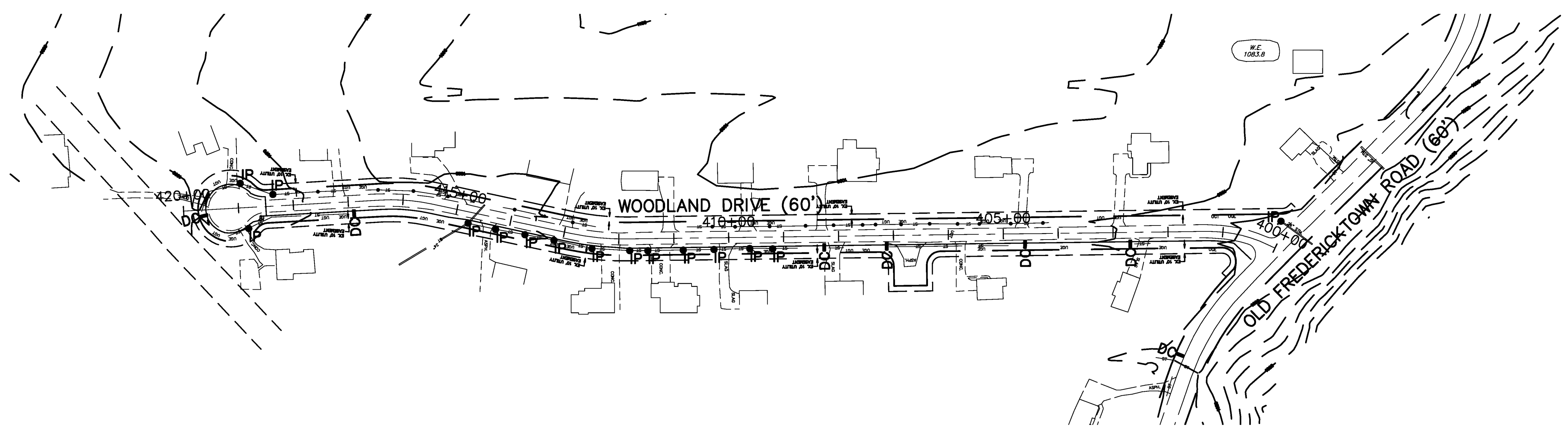
CALC: J.F.B.
DATE: 2/21
CHKD: BY: D.G.D.
DATE: 2/21

MAINTENANCE OF TRAFFIC GENERAL NOTES

OLD FREDERICKTOWN ROAD WATERLINE EXTENSION

EROSION CONTROL LEGEND

- DC FILTER FABRIC DITCH CHECK
- IP INLET PROTECTION



PROJECT DATA			
TOTAL AREA (EASEMENT/RIGHT-OF-WAY)	N/A	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.50
PROJECT EARTH DISTURBED AREA	4.087 AC.	RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.50
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.100 AC.	SOIL AND WATER CONSERVATION MAP	COLUMBIANA COUNTY SOIL SURVEYS
NOTICE OF INTENT EARTH DISTURBED AREA	4.187 AC.	IMMEDIATE RECEIVING WATERS	UNNAMED TRIBUTARIES TO OHIO RIVER
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	(N/A)	SUBSEQUENT RECEIVING WATER	OHIO RIVER
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE	(N/A)		

USGS QUADRANT
 EAST LIVERPOOL NORTH, OH-PA-WV (1994)
 LATITUDE: 40°41'38" } TO APPROXIMATE
 LONGITUDE: 80°33'36" } CENTER OF PROJECT

SWP3 NOTES:

THE CONTRACTOR SHALL FOLLOW THE PROJECT SPECIFICATIONS, ODOT STANDARD CONSTRUCTION DRAWINGS DM4.2, DM4.3 AND DM4.4; THE PERTINENT SECTIONS OF ODOT SUPPLEMENTAL SPECIFICATION 832; AND NOTES AND DETAILS IN THE PLANS TO ESTABLISH ALL TEMPORARY EROSION PROTECTION.

FOR ALTERNATIVE TEMPORARY EROSION CONTROL PRACTICES, THE CONTRACTOR SHALL REFERENCE THE MOST CURRENT EDITION OF THE ODNR "RAINWATER AND LAND DEVELOPMENT" MANUAL.

ALL FUEL TANKS SHALL BE PLACED WITHIN A STEEL OR PLASTIC VAT WITHIN THE CONSTRUCTION YARD; A DUMPSTER FOR WASTE AND PACKAGING SHALL ALSO BE PROVIDED FOR THE SITE WITHIN THE CONSTRUCTION YARD.

CONTRACTOR SHALL PROVIDE A DESIGNATED CONCRETE WASH PIT AREA FOR ALL CONCRETE TRUCK CLEAN OUT.

IF CONSTRUCTION IS HALTED OR IS EXPECTED TO BE HALTED FOR A PERIOD MORE THAN 14 DAYS AND/OR IF AREAS OF DISTURBED SOIL ARE TO REMAIN DORMANT FOR MORE THAN 14 DAYS, THE CONTRACTOR SHALL PROVIDE ODOT ITEM 832: CONSTRUCTION SEEDING & MULCHING TO ALL EXPOSED AREAS OF SOIL.

ODOT ITEM 670 SLOPE EROSION PROTECTION SHALL BE APPLIED TO ALL DISTURBED AREAS OF SOIL WITH SLOPES 2:1 OR GREATER.

SWP3 NOTES: (CONT.)

SEEDING & MULCHING, COMMERCIAL FERTILIZER, AND WATER SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT OF WAY LINES, AND FOR AREAS OUTSIDE THE RIGHT OF WAY LINES COVERED BY WORK AGREEMENT OR PERMANENT EASEMENT.

THE CONTRACTOR SHALL FURNISH AND APPLY WATER AND CALCIUM CHLORIDE FOR DUST CONTROL AS PER ODOT ITEM 616.

THE CONTRACTOR SHALL DAILY REMOVE ALL DIRT, MUD, SOIL, DEBRIS, AND FOREIGN MATTER THAT MAY BE TRACKED ONTO EXISTING ROADWAYS, STREETS, DRIVES OR WALKS BY ANY PROJECT EQUIPMENT OR SUPPLIER EQUIPMENT. THE CONTRACTOR SHALL PROVIDE A POWER BROOM FOR THIS TASK.

THE CONTRACTOR SHALL REFER TO THE "OEPA STANDARD STORM WATER POLLUTION PREVENTION" GENERAL NOTES ON SHEET 9 FOR ADDITIONAL INFORMATION.

ALL MATERIALS REMOVED FROM THE SITE SHALL BE PROPERLY DISPOSED OF AT AN APPROVED SITE FOR THE SPECIFIC MATERIAL BEING REMOVED. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING COPIES OF PERMITS FOR APPROVED DISPOSAL SITES. SITES NOT PROPERLY PERMITTED AS DISPOSAL SITES FOR THE SPECIFIC MATERIALS BEING DISPOSED OF SHALL NOT BE USED, OR THE CONTRACTOR WILL BE REQUIRED FOR OBTAINING THE PROPER PERMITS FOR THE SITE.

ANY TEMPORARY EROSION PROTECTION REQUESTED TO BE PROVIDED BY THE BUCKEYE WATER DISTRICT, EVEN IF NOT SHOWN ON THE SWP3, SHALL BE PROVIDED BY THE CONTRACTOR.

PROJECT DESCRIPTION

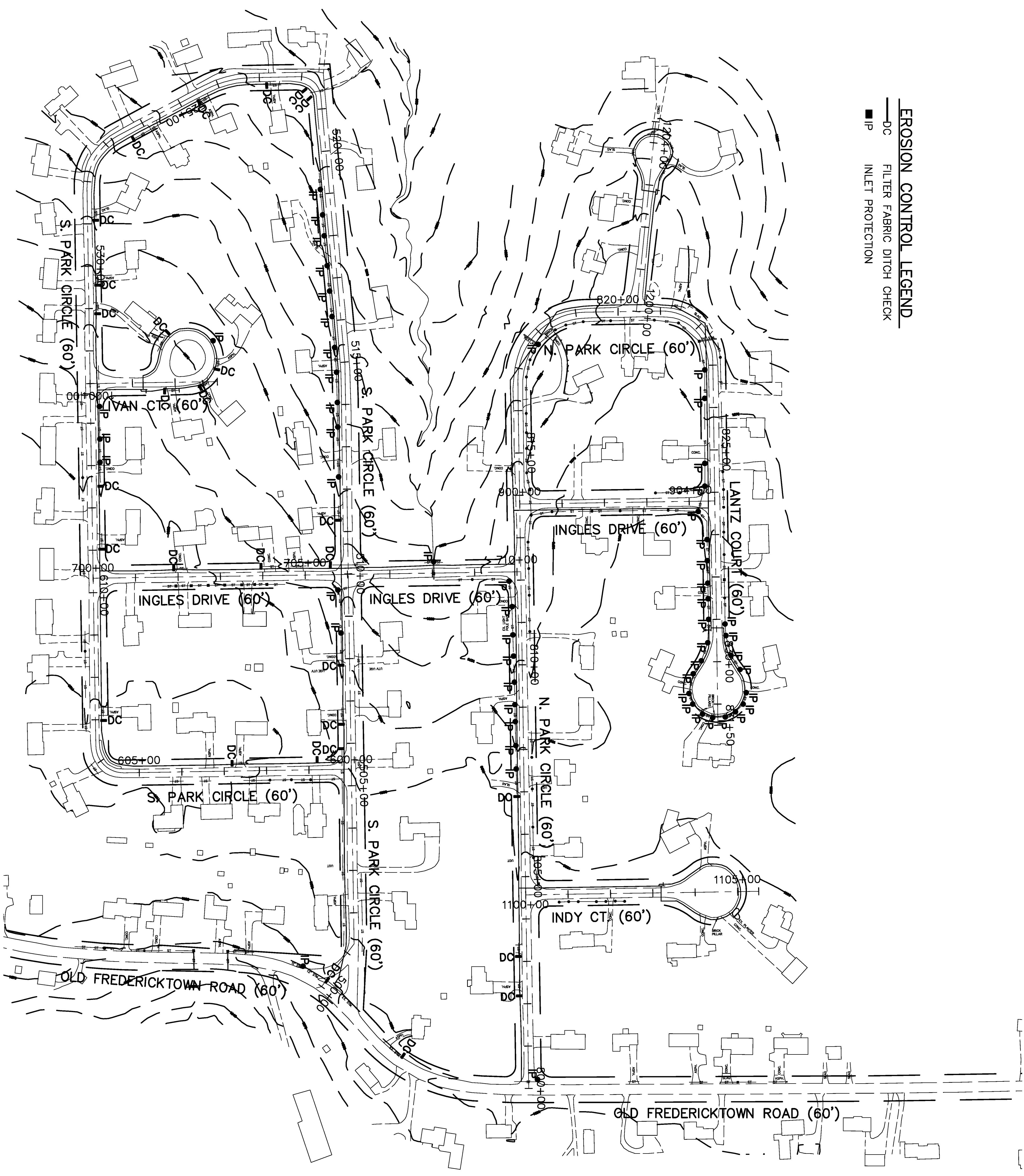
EXTENSION OF APPROXIMATELY 11,580 FEET OF PROPOSED 8" WATERLINE INCLUDING THE NECESSARY APPURTENANCES, VALVES, HYDRANTS, WATER SERVICES, AND APPROXIMATELY 2,300 FEET OF 2" CUL-DE-SAC WATERLINES. LOCATED IN ST. CLAIR TOWNSHIP WITHIN THE COUNTRY ESTATES & FREDERICK HEIGHTS RESIDENTIAL SUBDIVISIONS.

SEE OEPA SWPP NOTES ON SHEET 9

EROSION CONTROL LEGEND

DC FILTER FABRIC DITCH CHECK

IP INLET PROTECTION

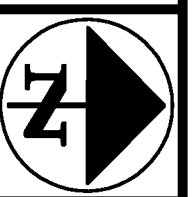


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OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

STORM WATER POLLUTION PREVENTION PLAN
FREDERICK HTS.

CALC BY: J.F.B. 0 120
DATE: 2/21
CHKD BY: D.G.D. 60 240
DATE: 2/21 HORIZONTAL SCALE IN FEET



OHIO EPA STANDARD STORM WATER POLLUTION PREVENTION NOTES

GROUNDWATER AND SURFACE WATER POLLUTION PREVENTION

1. IMPLEMENT BEST MANAGEMENT PRACTICES TO PREVENT DISCHARGE OF POLLUTANTS SUCH AS FUELS, LUBRICANTS, BITUMINOUS MATERIALS, CHEMICALS, DRILLING FLUIDS, SANITARY WASTE OR OTHER HARMFUL WASTE ONTO OR INTO THE GROUND, INTO OR ALONG STREAMS, WETLANDS, WATER BODIES, AND DRAINAGE COURSES LEADING TO THEM.
2. DO NOT PARK EQUIPMENT, STORE FUELS OR LUBRICANTS, PLACE TOXIC OR HAZARDOUS SUBSTANCES OR MATERIALS, OR STOCKPILE SOIL AND CONSTRUCTION MATERIALS IN FLOODPLAINS OR SOURCE WATER PROTECTION AREAS (WELL FIELD 5-YEAR TIME OF TRAVEL ZONE).
3. PROPERLY DISPOSE OF WASTES, INCLUDING WASTE MATERIALS, DEBRIS, AND RUBBISH IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
4. ALL DISPOSAL OF EXCESS SOIL, DEBRIS AND MATERIALS MUST BE DONE IN AN ENVIRONMENTALLY SOUND MANNER IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. THERE SHALL BE NO DISPOSAL IN OR NEAR ANY WATER BODY, FLOODPLAIN, WETLAND, DRAINAGE COURSE OR ENVIRONMENTALLY SENSITIVE AREA, EVEN WITH PERMISSION OF THE PROPERTY OWNER.

VEGETATION PROTECTION

1. PRIOR TO ANY CLEARING, THE CONTRACTOR OR CONTRACTOR'S QUALIFIED PERSON, AND REPRESENTATIVE OF THE COUNTY SHALL WALK THE PROJECT SITE ALIGNMENT TO IDENTIFY AND MARK TREES THAT ARE TO BE SAVED AND VEGETATION TO BE PROTECTED.
2. REMOVE ONLY TREES, SHRUBS AND GROUND COVER NECESSARY FOR CONSTRUCTION OF THE PROJECT.
3. PROTECT INDIVIDUAL TREES, TREE AREAS AND VEGETATION TO BE SAVED WITH A BARRIER IF NECESSARY. ENSURE THAT THERE IS NO STORAGE OF SOIL OR MATERIAL, OR CONSTRUCTION TRAFFIC WITHIN THE DRIP LINE OF THE TREES. NO TREE REMOVAL SHALL BE PERMITTED OUTSIDE THE CONSTRUCTION AREA WITHOUT SPECIFIC WRITTEN PERMISSION OF THE RESIDENT CONSTRUCTION ENGINEER.
4. BRANCHES THAT OVERHANG THE CONSTRUCTION AREA AND INTERFERE WITH THE OPERATION OF EQUIPMENT SHALL BE TIED BACK TO AVOID DAMAGE, IF POSSIBLE. SELECTIVE PRUNING OF TREE LIMBS PRIOR TO CONSTRUCTION MAY ONLY BE DONE WHERE REMOVAL IS NECESSARY FOR OPERATION OF EQUIPMENT.
5. PROTECT TREES TO BE SAVED FROM INJURY BY TREES BEING FELLED. REPAIR ALL INJURIES TO BARK, TRUNKS, LIMBS, AND ROOTS OF REMAINING TREES BY PROPERLY DRESSING, CUTTING, AND STAKING, USING PROPER TOOLS AND MATERIALS. PRUNE THE TREES TO COMPENSATE IF THERE IS ROOT LOSS. REMOVE TREES DAMAGED BEYOND REPAIR AND MAKE RESTITUTION TO THE PROPERTY OWNER.
6. MEASURES & PRACTICES SHALL BE IMPLEMENTED DURING CONSTRUCTION AS FEASIBLE, TO PRESERVE NATURAL CONDITIONS, INCLUDING: PROTECTION OF EXISTING VEGETATION (INCLUDING INDIVIDUAL TREES) AND RIPARIAN AREAS; MAINTENANCE OF VEGETATION BUFFER STRIPS ALONG ANY DRAINAGES, WATER BODIES AND WETLANDS; AND PHASING CONSTRUCTION AND CLEARING LAND IN STAGES TO MINIMIZE THE AMOUNT OF AREA DISTURBED AT ANY ONE TIME.
7. LANDSCAPING SHOULD BE PRESERVED WHEREVER PRACTICAL. IF DAMAGE TO OR REMOVAL OF LANDSCAPING IS UNAVOIDABLE, REPAIR OR REPLACE EXISTING VEGETATION "IN-KIND" UNLESS THE LAND OWNER SPECIFIES OTHERWISE. CONSIDER RELOCATING TREES OR SHRUBS IF THEY CANNOT BE PLACED IN THE ORIGINAL LOCATIONS.

ARCHAEOLOGICAL AND HISTORICAL RESOURCES PROTECTION

THE CONTRACTOR(S) AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE SECTION 149.53 TO NOTIFY THE OHIO HISTORICAL SOCIETY AND THE OHIO HISTORIC SITE PRESERVATION BOARD OF ARCHAEOLOGICAL DISCOVERIES LOCATED IN THE PROJECT AREA, AND TO COOPERATE WITH THOSE ENTITIES IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND SALVAGE EFFORTS FOR DISCOVERIES IN THE PROJECT AREA. IN CASE OF AN ARCHAEOLOGICAL DISCOVERY OR DAMAGE TO A POTENTIAL HISTORIC RESOURCE, CONTACT OHIO EPA-DEFA AND OHIO HISTORIC PRESERVATION OFFICE (PHONE: 614-297-2470).

OHIO EPA STANDARD STORM WATER POLLUTION PREVENTION NOTES

EROSION PREVENTION, SEDIMENT AND DUST CONTROL

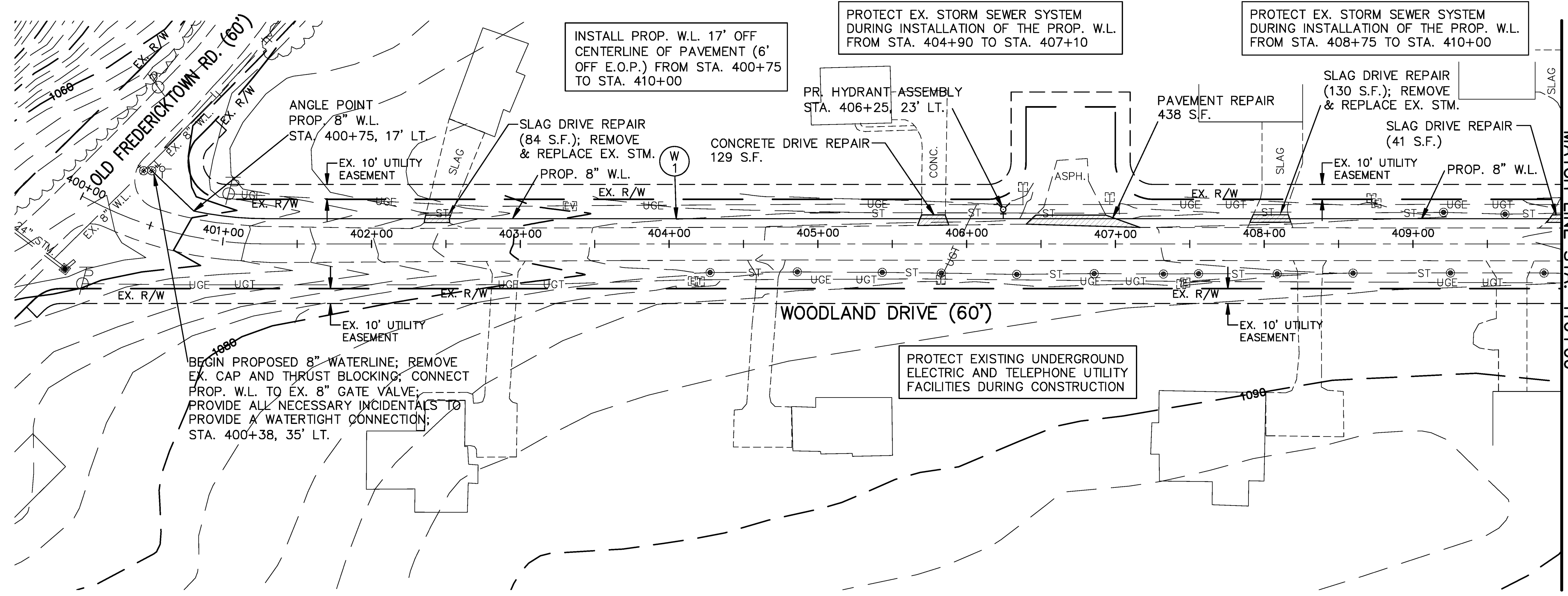
1. THE CONTRACTOR(S) SHALL IMPLEMENT THE MEASURES AND PRACTICES IN NPDES CONSTRUCTION GENERAL PERMIT PART III.G - SWP3 AND IN THE PROJECT PLANS NECESSARY TO AVOID, MINIMIZE OR MITIGATE POTENTIAL ADVERSE IMPACTS FROM CONSTRUCTION ACTIVITIES ON THE HUMAN AND NATURAL ENVIRONMENTS. THE MEASURES AND PRACTICES FOR EROSION PREVENTION, SEDIMENT CONTROL, AND STABILIZATION SHALL BE INSTALLED IN ACCORDANCE WITH STANDARDS AND SPECIFICATIONS IN THE MOST RECENT ODNR RAINWATER AND LAND DEVELOPMENT MANUAL OR EQUAL APPROVED BY THE COUNTY SWCD. ALTERNATIVE CONTROLS, MEASURES OR PRACTICES SHALL BE SUBMITTED TO THE RESIDENT CONSTRUCTION ENGINEER FOR APPROVAL, TWO WEEKS PRIOR TO WORK IN THE AREA AFFECTED BY THE CHANGE.
2. THE CONTRACTOR SHALL NOT COMMENCE SITE CLEARING UNTIL PREPARED TO START CONSTRUCTION. THE EROSION PREVENTION AND SEDIMENT CONTROLS ARE TO BE IN PLACE BEFORE DISTURBING THE LAND THAT DRAINS INTO THEM.
3. PRIOR TO GRADING AND WITHIN 7 DAYS FROM THE START OF GRUBBING, IMPLEMENT APPROPRIATE STRUCTURAL MEASURES & PRACTICES TO DIRECT RUNOFF AWAY AND/OR LIMIT RUNOFF FROM ANY AREA DISTURBED BY CONSTRUCTION OR ASSOCIATED ACTIVITY ON OR OFF THE PROJECT SITE INCLUDING ANY SOIL STOCKPILE. THEY MAY INCLUDE DIVERSIONS, PIPE SLOPE DRAINS, ROCK CHECK DAMS, AND PROTECTIVE GRADING. IF AN AREA IS TO REMAIN DISTURBED FOR MORE THAN 14 DAYS, STRUCTURAL MEASURES & PRACTICES TO CONTROL EROSION AND TRAP SEDIMENT FROM THE AREA ARE REQUIRED. THEY MAY INCLUDE SILT FENCES, SETTLING PONDS, STORM DRAIN INLET PROTECTION, AND DIVERSION DIKES OR CHANNELS TO DIRECT RUNOFF FROM DISTURBED AREAS TO A SETTLING POND.
4. MINIMIZE DISTURBANCE OF VEGETATION FOR EROSION CONTROL, SEDIMENT FILTERING, HABITAT AND AESTHETIC VALUE. CONDUCT CONSTRUCTION AND ASSOCIATED ACTIVITIES ON AND OFF THE CONSTRUCTION SITE IN A MANNER THAT MINIMIZES AREA DISTURBED. RESTRICT OPERATION OF CONSTRUCTION MACHINERY TO THE LIMITS OF THE CONSTRUCTION SITE AND EASEMENT.
5. ANY DISTURBED AREA INCLUDING ANY SOIL STOCKPILE ON OR OFF THE PROJECT SITE NOT AT FINAL GRADE THAT WILL REMAIN IDLE FOR MORE THAN 21 DAYS AND LESS THAN 1 YEAR SHALL BE TEMPORARILY STABILIZED BY QUICKLY PROVIDING COVER TO CONTROL EROSION. ANY SUCH DISTURBED AREA THAT IS WITHIN 50 FEET OF A WATER BODY OR DRAINAGE COURSE, SHALL BE STABILIZED WITHIN 2 DAYS OF MOST RECENT DISTURBANCE. ANY AREA NOT WITHIN 50 FEET OF A WATER BODY OR DRAINAGE COURSE SHALL BE STABILIZED WITHIN 7 DAYS.
6. ANY AREA WITHIN 50 FEET OF A WATER BODY OR DRAINAGE COURSE SHALL BE PERMANENTLY STABILIZED WITHIN 2 DAYS OF REACHING FINAL GRADE. ANY AREA THAT IS MORE THAN 50 FEET FROM A WATER BODY OR DRAINAGE COURSE SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN FUNCTIONAL CONDITION UNTIL FINAL STABILIZATION IS ACHIEVED.
7. STABILIZATION MAY BE ACHIEVED USING PRACTICES AND MEASURES SUCH AS: TEMPORARY OR PERMANENT SEEDING, DORMANT SEEDING, MULCHING, MULCH BLANKET, GEOTEXTILE, SOD, VEGETATIVE BUFFER STRIPS, PRESERVING EXISTING COVER, ALTERNATIVE GROUND COVER, USE OF CONSTRUCTION ENTRANCES, AND PHASING OF OPERATIONS. STABILIZATION OF SLOPES GREATER THAN 15%, FILL SLOPES, AND OTHER AREAS TENDING TO BE UNSTABLE SHALL INCLUDE MEASURES SUCH AS ANCHORED MULCH BLANKET OR MATTING.
8. FINAL STABILIZATION IS ACHIEVED WHEN UNIFORM PERENNIAL COVERAGE OF AT LEAST 70% IS ESTABLISHED ON ALL AREAS NOT PAVED OR LANDSCAPED, OR WHEN EQUIVALENT PERMANENT STABILIZATION MEASURES HAVE BEEN EMPLOYED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED AND TEMPORARY CONTROL PRACTICES REMOVED AFTER FINAL STABILIZATION.
9. ANY DISTURBED AREA OR PART OF ANY DISTURBED AREA THAT WILL REMAIN IDLE FOR MORE THAN 1 YEAR OR OVER THE WINTER, OR ON WHICH WORK IS TO BE SUSPENDED, SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF MOST RECENT DISTURBANCE. DISTURBED AREAS SHALL BE STABILIZED PRIOR TO THE ONSET OF WINTER. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN FUNCTIONAL CONDITION DURING INTERRUPTION OF CONSTRUCTION.
10. AS CONSTRUCTION IS COMPLETED OR AN AREA IS NO LONGER NEEDED FOR STORAGE OR EQUIPMENT TRAFFIC, FINE GRADE AND PERMANENTLY STABILIZE DISTURBED AREAS NOT TO BE PAVED. THE FINAL GRADE SHALL BE CONSISTENT WITH SURROUNDING TOPOGRAPHY FOR PROPER DRAINAGE AND AESTHETICS. LOCATE, CONSTRUCT AND RESTORE SITE ACCESS ROUTES IN A MANNER THAT PREVENTS EROSION AND RELEASE OF SEDIMENT INTO WATER BODIES, WETLANDS OR DRAINAGE COURSES, UNTIL FINAL STABILIZATION IS ACHIEVED.
11. UTILIZE CONTROL MEASURES AND PRACTICES AS APPROPRIATE TO PREVENT EROSION AND RELEASE OF SEDIMENT FROM THE PROJECT SITE SUCH AS: BUFFER ZONES OF UNDISTURBED VEGETATION, PROTECTIVE GRADING, STABILIZED DIVERSION DIKES, STORM SEWER INLET FILTERS, SILT FENCE, ROCK CHECK DAMS, PIPE SLOPE DRAINS, SETTLING PONDS, RIP-RAP, SEED AND MULCH TO SUIT CONDITIONS (E.G. CRIMPED STRAW, STRAW NET, TACKIFIED MULCH, SPRAY MULCH), ANCHORED MATTING, AND SOD.
12. PROVIDE AN AREA OF AGGREGATE BASE AT THE CONSTRUCTION SITE EXITS FOR REMOVING SOIL FROM VEHICLE TIRES AND UNDERCARRIAGE PRIOR TO LEAVING THE CONSTRUCTION SITE. REMOVE SOIL, DEBRIS AND OTHER MATERIAL TRACKED, SPILLED, DUMPED OR OTHERWISE DEPOSITED ON PUBLIC ROADS DURING TRAVEL TO AND FROM THE PROJECT. CONTROL DUST GENERATION BY UTILIZING METHODS SUCH AS SPRAYING WITH WATER, OR APPLICATION OF DUST CONTROL CHEMICALS AS APPROPRIATE TO PREVENT RELEASE OF DUST FROM THE PROJECT SITE.
13. DIVERT RUNOFF FROM AREAS UPSLOPE OF AREAS ON AND OFF THE PROJECT DISTURBED BY CONSTRUCTION OR ASSOCIATED ACTIVITIES AWAY FROM EXPOSED SOIL AREAS AND STOCKPILES. STABILIZE EARTHEN DIVERSION DIKES AND DRAINAGE COURSES BY SEEDING AND INSTALLING ANCHORED MULCH BLANKET, MATTING, SODDING, ROCK CHECK DAMS, AND RIP-RAP, AS APPROPRIATE.
14. DIRECT CONCENTRATED STORM WATER RUNOFF AND RUNOFF FROM DRAINAGE AREAS EXCEEDING THE DESIGN CAPACITY OF SILT FENCE OR INLET PROTECTION, TO A SETTLING POND FOR SEDIMENT CAPTURE PRIOR TO DISCHARGE TO A WATER BODY OR A STABILIZED DRAINAGE COURSE LEAVING THE SITE.
15. FILTER FABRIC AND STRAW BALES ARE NOT SUITABLE MATERIALS FOR DITCH CHECKS UNLESS USED IN COMBINATION WITH OTHER MATERIALS.
16. INSTALL SILT FENCE ON CONTOUR BUT WITH THE ENDS UP SLOPE OF THE CONTOUR TO PREVENT RUNOFF FROM BYPASSING THE FENCE. FENCES ON SLOPING AREAS SHALL NOT EXCEED THE SPACING SPECIFIED IN THE OHIO CONSTRUCTION GENERAL PERMIT PART III - SWP3 FOR ACRES OF DRAINAGE AREA PER 100 FEET OF EFFECTIVE FENCE. SET POSTS AND EXCAVATE A TRENCH OR SLOT SIX TO TWELVE INCHES DEEP UPSLOPE OF THE LINE OF POSTS. STAPLE WIRE FENCE TO THE POSTS SO THAT IT EXTENDS INTO THE TRENCH. FASTEN THE FABRIC TO THE WIRE FENCE AND ANCHOR IT IN THE TRENCH BY BACKFILLING AND COMPACTING TO PREVENT UNDERCUTTING.
17. STRAW OR HAY BALES SHALL ONLY BE USED IN COMBINATION WITH OTHER MATERIALS (E.G. FILTER FABRIC). FOR EXAMPLE, TO SUPPORT SILT FENCE OR FORM A BERM OR BARRIER TO DIVERT RUNOFF. SET BALES IN A TRENCH 4 INCHES OR MORE IN DEPTH WITH THE BINDING OFF THE GROUND, AND ANCHORED WITH TWO STAKES DRIVEN THROUGH THE BALES INTO THE GROUND 1 1/2 FEET TO 2 FEET. THE TRENCH SHALL BE BACKFILLED WITH SOIL, AND SPACES BETWEEN THE BALES FILLED WITH STRAW. THE BALES SHALL BE COVERED WITH FILTER FABRIC ANCHORED TO THE GROUND ON THE UPSLOPE SIDE OF THE BARRIER OR BERM.
18. PROTECT STORM SEWER INLETS WITH PROPERLY INSTALLED AND MAINTAINED SILT FENCE, FILTER SOCK, OR OTHER FILTER DEVICE TO REMOVE SILT FROM CONSTRUCTION SITE RUNOFF THAT ENTERS THEM.
19. DISCHARGE WATER ONLY TO STABILIZED SITES, SUCH AS GRASS SWALES, STREAMS OR STORM SEWERS. DO NOT DISCHARGE ONTO ANY AREA WHERE THE FLOW COULD CAUSE EROSION SUCH AS STEEP SLOPES, EXPOSED SOIL, AND POORLY VEGETATED STREAM BANKS AND DRAINAGES.
20. SEGREGATE TOPSOIL DURING EXCAVATION AND REPLACE DURING PERMANENT STABILIZATION OF DISTURBED AREAS. SOIL STOCKPILES SHALL BE LOCATED AWAY FROM FLOODPLAINS, WETLANDS, WATER BODIES, DRAINAGE COURSES, RIPARIAN CORRIDORS AND BUFFERS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS.
21. EXCAVATED MATERIAL SHOULD BE PLACED ON THE UPHILL SIDE OF AN EXCAVATION UNLESS THIS CREATES AN UNSAFE CONDITION. NO MORE THAN 200 FEET OF EXCAVATION SHALL BE OPEN AT ANY ONE TIME. BACKFILL EXCAVATIONS IMMEDIATELY AFTER WORK IS COMPLETE OR WHEN CONCRETE HAS SUFFICIENT STRENGTH. COMPACT AND GRADE THE SURFACE TO EXISTING CONTOURS TO ALLOW PROPER DRAINAGE.
22. IMPLEMENT AND MAINTAIN ADEQUATE EROSION PREVENTION AND SEDIMENT CONTROL MEASURES & PRACTICES AT SOIL BORROW /DISPOSAL SITES AND OFFSITE MATERIAL STORAGE AREAS IN A MANNER THAT PREVENTS SEDIMENT FROM ENTERING WATER BODIES, WETLANDS OR DRAINAGE COURSES, UNTIL FINAL STABILIZATION IS ACHIEVED. WITHIN 48 HOURS OF COMPLETION OF CONSTRUCTION IN STREETS OR ON PRIVATE PROPERTIES, REMOVE ALL EXCESS EXCAVATED SOIL STOCKPILED AT THE PROJECT SITE WHICH IS NOT TO BE USED FOR BACKFILL OR FILL ON THE SITE.



CHECKED BY: J.F.B.
DATE: 2/21
BY: D.G.D.
DATE: 2/21

STORM WATER POLLUTION PREVENTION PLAN
OHIO EPA NOTES

OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION



INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 400+75 TO STA. 410+00

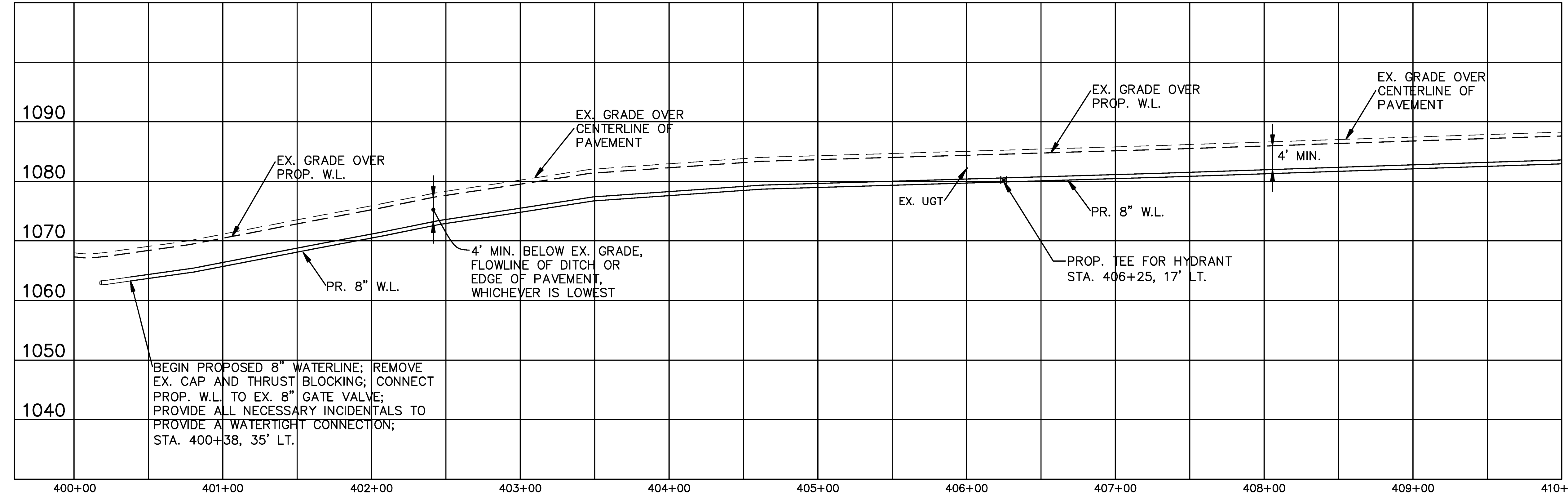
PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 404+90 TO STA. 407+10

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 408+75 TO STA. 410+00

BEGIN PROPOSED 8" WATERLINE; REMOVE EX. CAP AND THRUST BLOCKING; CONNECT PROP. W.L. TO EX. 8" GATE VALVE; PROVIDE ALL NECESSARY INCIDENTALS TO PROVIDE A WATERTIGHT CONNECTION; STA. 400+38, 35' LT.

PROTECT EXISTING UNDERGROUND ELECTRIC AND TELEPHONE UTILITY FACILITIES DURING CONSTRUCTION

MATCH LINE STA. 410+00



ESTIMATED QUANTITIES

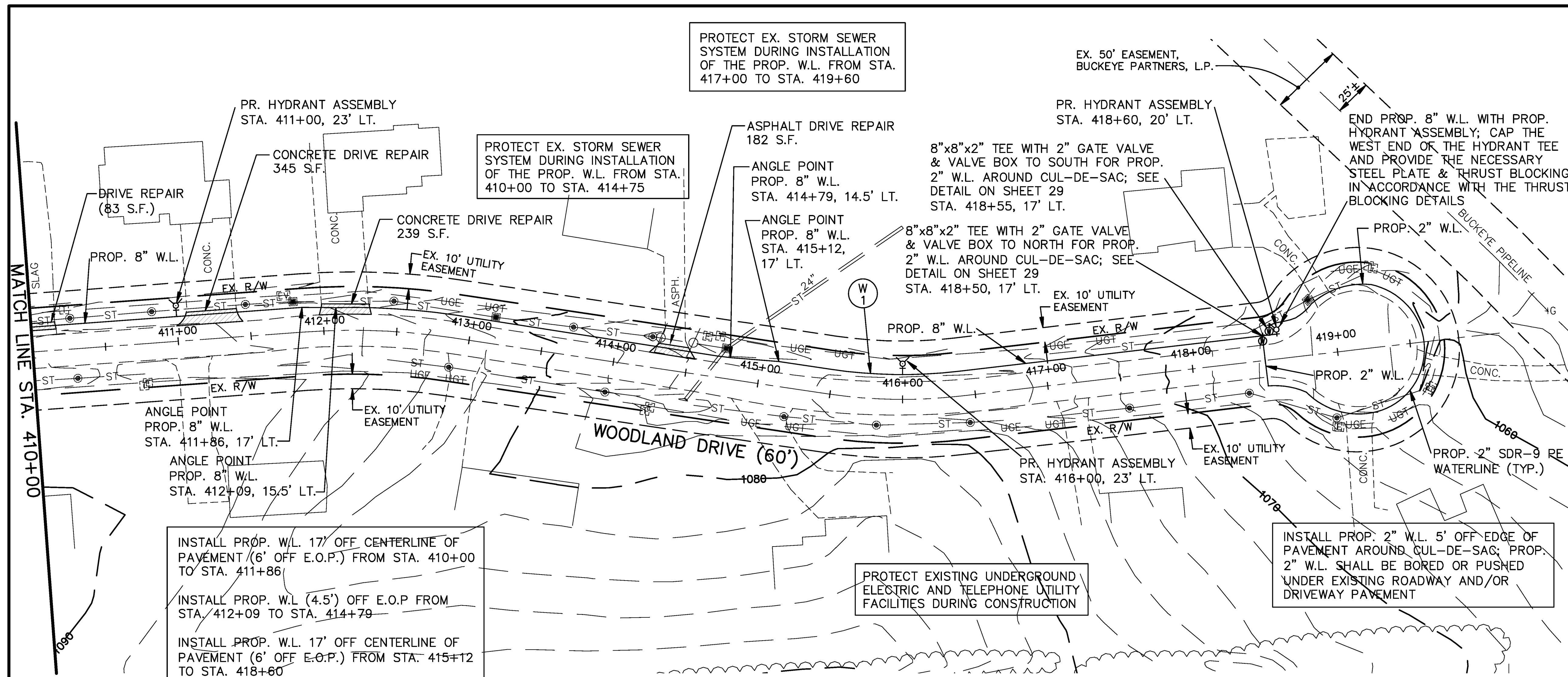
STATION TO STATION	REF. NO.	SIDE	PAVEMENT REMOVED	PAVEMENT FULL DEPTH	CONCRETE SAWING	BASE CLASS OC MS. AS PER PLAN	TACK COAT	SURFACE COURSE, TYPE 1, (4.8) A.P.P. (P&A-22)	NON-REINFORCED CONCRETE PAVEMENT	12" CONDUIT, TYPE B, AS PER PLAN	8" PVC-C900, DR 14, TYPE B, AS PER PLAN	8" PVC-C900, DR 14, TYPE C, AS PER PLAN	6" HYDRANT ASSEMBLY, AS PER PLAN	TOTALS
		LT.	S.Y.	FOOT	S.Y.	S.Y.	GAL.	C.Y.	S.Y.	FOOT	FOOT	FOOT	LEACH	
400+38-410+00	WI		63	161		49	4	4	15	56	124	839	1	
TOTALS			63	161		49	4	4	15	56	124	839	1	

OLD FREDERICKTOWN ROAD
 WATERLINE EXTENSION

PLAN AND PROFILE
 STA. 400+00.00 TO STA. 410+00.00

SEE SHT. NO.
 DATE: 2/21
 BY: J.F.B.
 CHECKED BY: D.G.D.
 DATE: 2/21

HORIZONTAL SCALE IN FEET
 0 20 40 60 80



PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 417+00 TO STA. 419+60

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 410+00 TO STA. 414+75

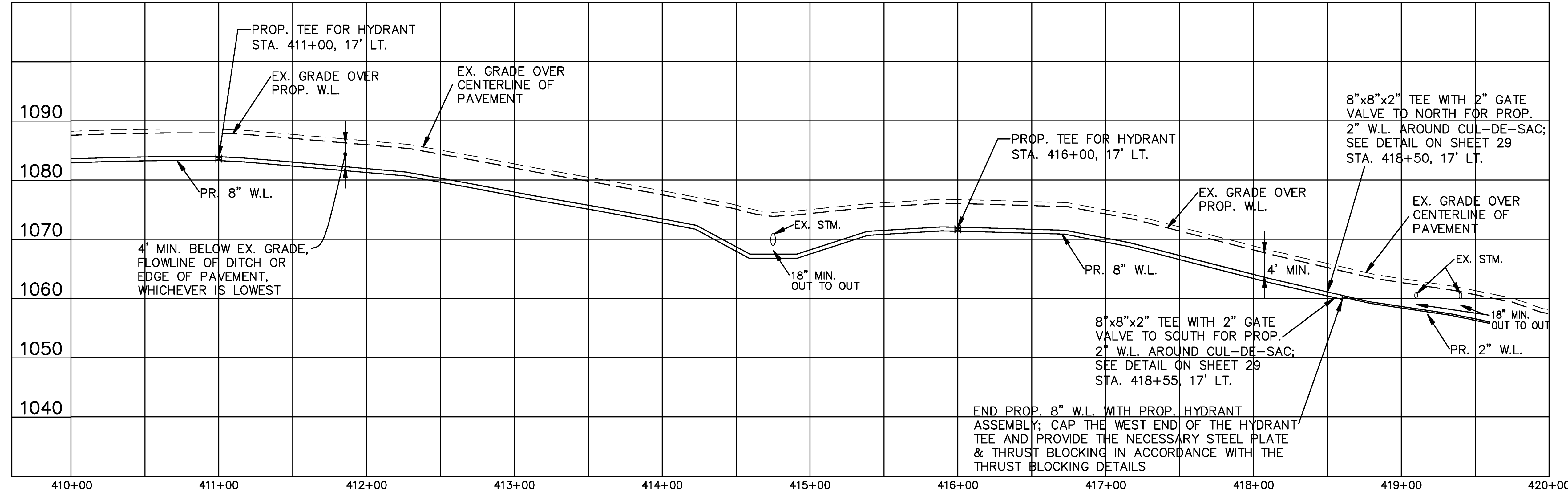
PROTECT EXISTING UNDERGROUND ELECTRIC AND TELEPHONE UTILITY FACILITIES DURING CONSTRUCTION

INSTALL PROP. 2" W.L. 5' OFF EDGE OF PAVEMENT AROUND CUL-DE-SAC; PROP. 2" W.L. SHALL BE BORED OR PUSHED UNDER EXISTING ROADWAY AND/OR DRIVEWAY PAVEMENT

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 410+00 TO STA. 411+86

INSTALL PROP. W.L. (4.5') OFF E.O.P FROM STA. 412+09 TO STA. 414+79

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 415+12 TO STA. 418+60



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	S.Y.	FOOT	GAL.	C.Y.	S.Y.	FOOT	FOOT	LEACH	AS PER PLAN								
WI	410+00~419+50	L/R	86	197	2	2	65	318	110	750	2	3							
TOTALS											86	197	2	65	318	110	750	2	3

PLAN AND PROFILE
STA. 410+00.00 TO STA. 419+50.00

OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

SEE SHT. NO.

SCALE IN FEET

CHECKED BY: J.F.B.
DATE: 2/21

DESIGNED BY: D.G.D.
DATE: 2/21

12
30

BEGIN PROPOSED 8" WATERLINE, REMOVE EX. CAP AND THRUST BLOCKING; CONNECT PROP. W.L. TO EX. 8" GATE VALVE; PROVIDE ALL NECESSARY INCIDENTALS TO PROVIDE A WATERTIGHT CONNECTION; STA. 500+28, 20' RT.

INSTALL PROP. W.L. 18' OFF CENTERLINE OF PAVEMENT (7' OFF E.O.P.) FROM STA. 600+00 TO STA. 601+00

SEE SHEET 17 FOR CONTINUATION OF PROP. 8" W.L. ALONG S. PARK CIRCLE TO SOUTH

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 506+00 TO STA. 509+00

INSTALL PROP. W.L. 18' OFF CENTERLINE OF PAVEMENT (7' OFF E.O.P.) FROM STA. 501+33 TO STA. 504+75

ANGLE POINT PROP. 8" W.L. STA. 500+43, 19' RT.

ANGLE POINT PROP. 8" W.L. STA. 501+33, 18' LT.

ANGLE POINT PROP. 8" W.L. STA. 504+75, 18' LT.

ANGLE POINT PROP. 8" W.L. STA. 507+00, 17' LT.

OLD FREDERICKTOWN RD. (60')

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 501+07 TO STA. 505+85

PR. HYDRANT ASSEMBLY STA. 504+90, 28' LT.

PAVEMENT REPAIR 472 S.F.

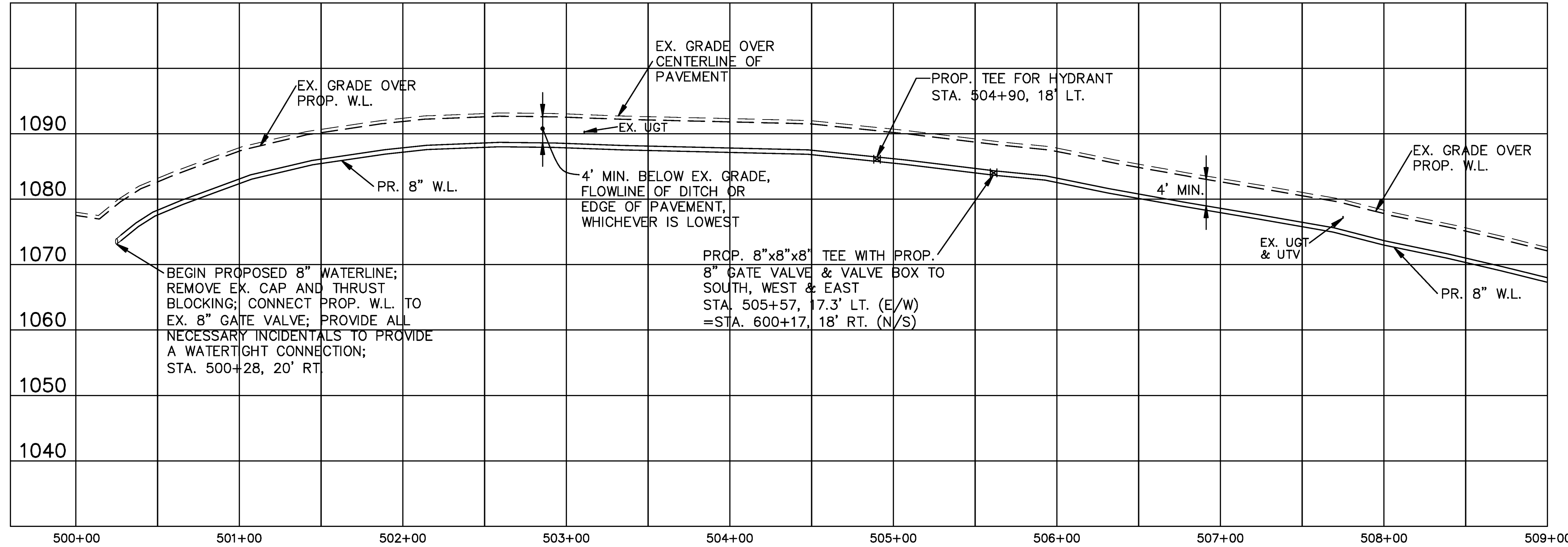
CONCRETE DRIVE REPAIR 224 S.F.; REMOVE & REPLACE EX. STM.

PROP. 8"x8"x8" TEE WITH PROP. 8" GATE VALVE & VALVE BOX TO SOUTH, WEST & EAST STA. 505+57, 17.3' LT. (E/W) STA. 600+17, 18' RT. (N/S)

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 507+90 TO STA. 509+00

MATCH LINE STA. 601+00

MATCH LINE STA. 509+00



ESTIMATED QUANTITIES

STATION TO STATION	REF. NO.	S.Y.	FOOT	CONCRETE	AS PER PLAN	TACK COAT	SURFACE COURSE, TYPE 1, (48) A.P.P. (664-22)	6" NON-REINFORCED CONCRETE PAVEMENT	12" CONDUIT, TYPE B, AS PER PLAN	8" PVC-C900, DR 14, PR 305, WL & APPURT. TYPE B, AS PER PLAN	8" PVC-C900, DR 14, PR 305, WL & APPURT. TYPE C, AS PER PLAN	8" GATE VALVE AND VALVE BOX AS PER PLAN	6" HYDRANT ASSEMBLY AS PER PLAN	AS PER PLAN
500+28~509+00	W1	153	381	77	77	9	9	9	35	185	684	3	1	
600+17~601+00	W2	153	381	77	77	9	9	9	35	199	753	3	1	
TOTALS		153	381	77	77	9	9	9	35	199	753	3	1	

PLAN AND PROFILE
 STA. 500+00.00 TO STA. 509+00.00
 OLD FREDERICKTOWN ROAD
 WATERLINE EXTENSION
 13/30
 SCALE IN FEET
 HORIZONTAL SCALE: 1" = 40'
 DATE: 2/21
 CHECKED BY: D.G.D.
 DATE: 2/21

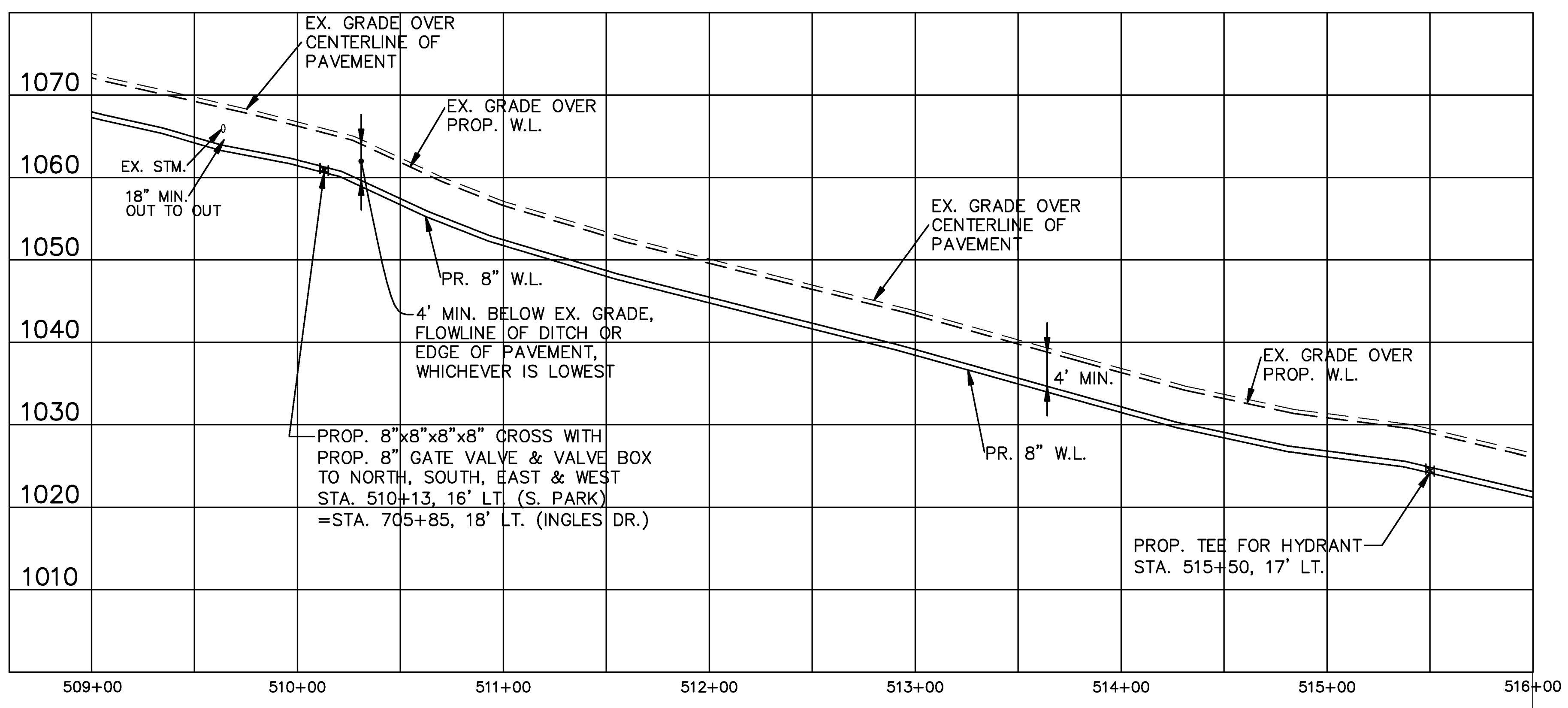
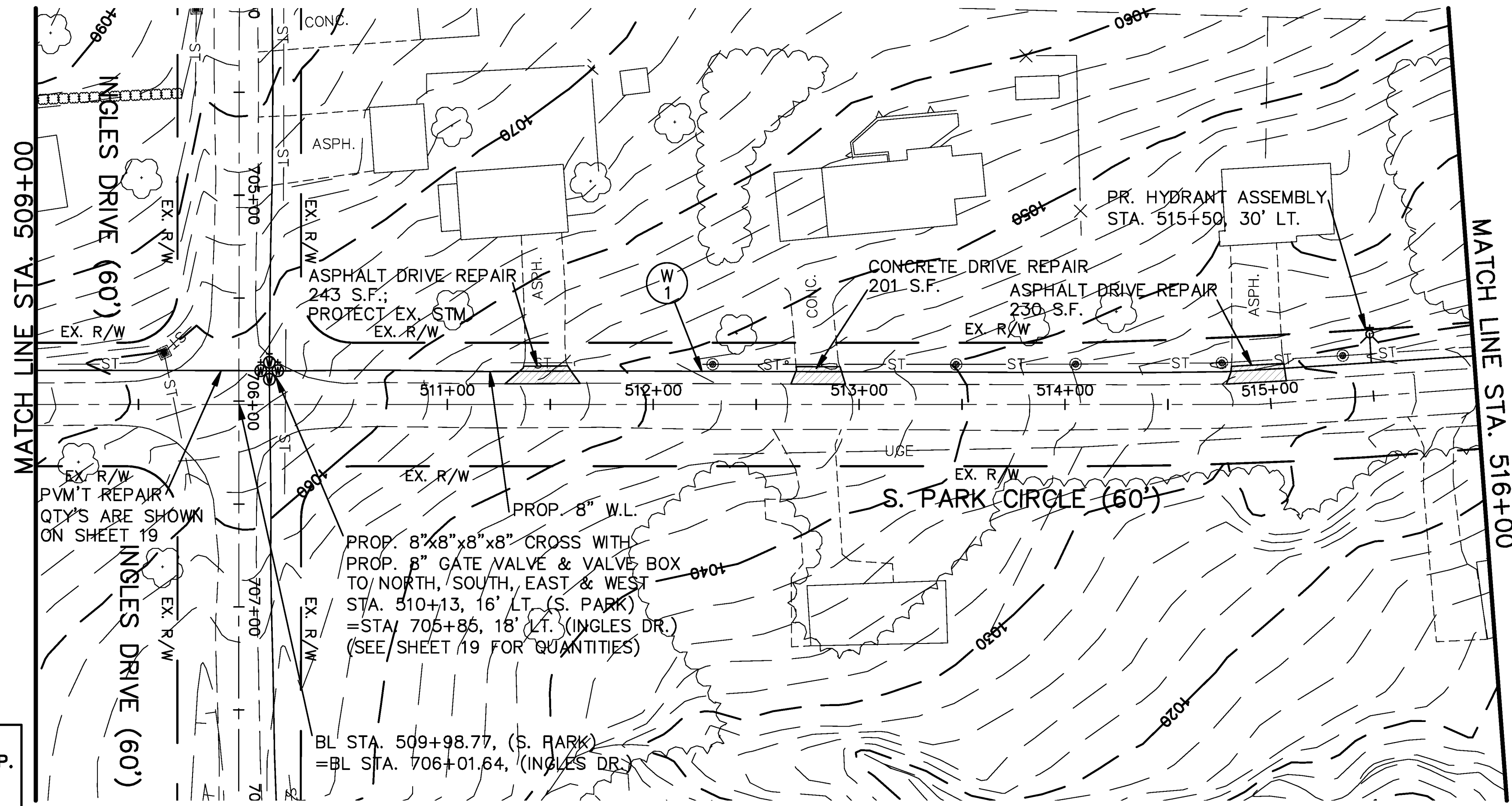
SEE SHEET 19 FOR CONTINUATION OF PROP. 8" W.L. ALONG INGLES DRIVE TO SOUTH

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 509+00 TO STA. 509+75

INSTALL PROP. W.L. 16' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 509+00 TO STA. 516+00

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 512+20 TO STA. 516+00

SEE SHEET 19 FOR CONTINUATION OF PROP. 8" W.L. ALONG INGLES DRIVE TO NORTH



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	UNIT	QUANTITY	UNIT PRICE	TOTAL	SEE SHT. NO.
WI	509+00-516+00	LT.	75		75	
			75		75	
TOTALS			75		75	
202		PAVEMENT REMOVED	75		75	
255		PAVEMENT FULL DEPTH SAWING	160		160	
407		TACK COAT	5		5	
441		ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (48) A.P. (684-22)	5		5	
452		NON-REINFORCED CONCRETE PAVEMENT	23		23	
638		PVC-C900 DR 14" PR 305, MI & APPURT. TYPE B, AS PER PLAN	133		133	
638		PVC-C900 DR 14" PR 305, MI & APPURT. TYPE C, AS PER PLAN	567		567	
638		6" HYDRANT ASSEMBLY, AS PER PLAN	1		1	

OLD FREDERICKTOWN ROAD WATERLINE EXTENSION STA. 509+00.00 TO STA. 516+00.00

PLAN AND PROFILE

SCALE IN FEET: HORIZONTAL 80', VERTICAL 20'

DATE: 2/21

BY: J.F.B.

DATE: 2/21

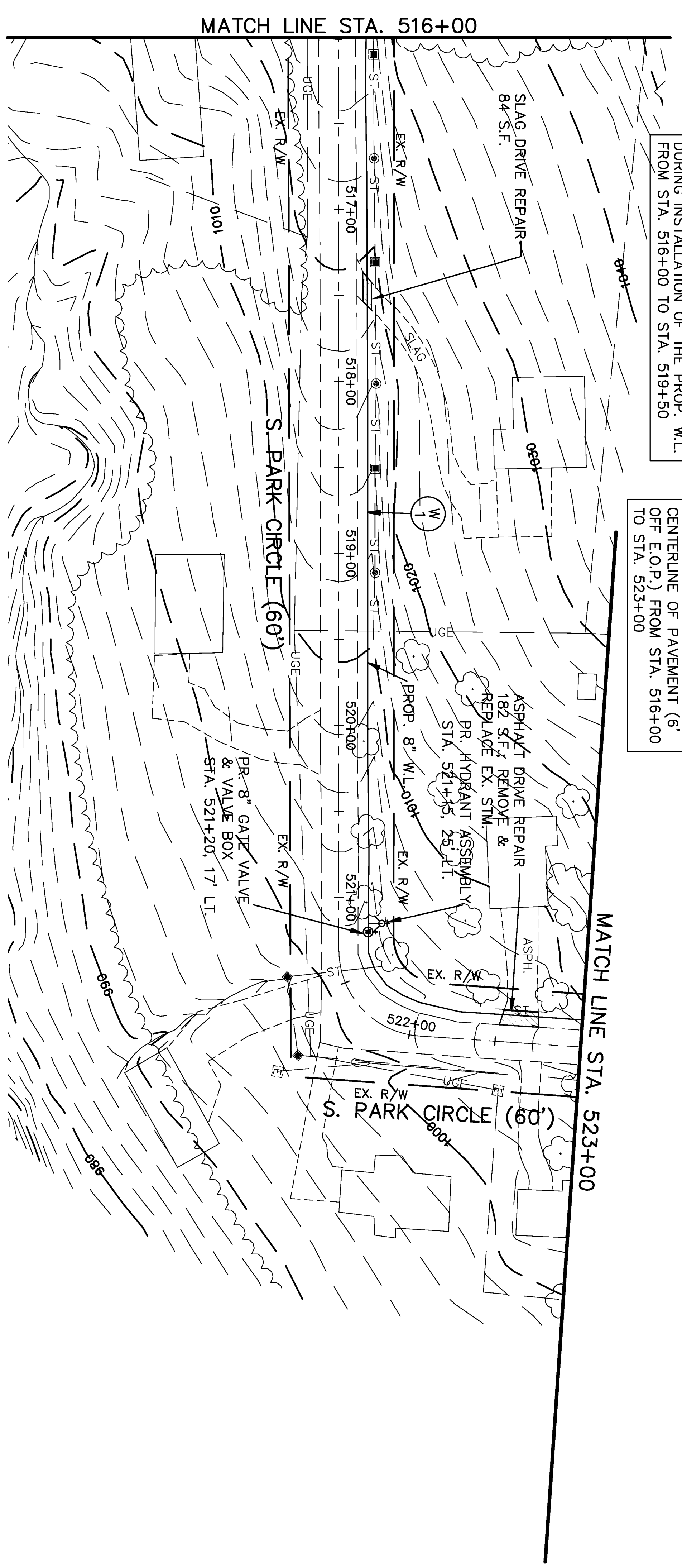
BY: D.G.D.

DATE: 2/21

14/30

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 516+00 TO STA. 519+50

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 516+00 TO STA. 523+00



1050	516+00	517+00	518+00	519+00	520+00	521+00	522+00	523+00
1040								
1030								
1020								
1010								
1000								
990								

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	ITEMS										SEE SHT. NO.		
			202	255	407	441	611	638	638	638	638	638			
			S.Y.	FOOT	GAL.	C.Y.	FOOT	FOOT	FOOT	FOOT	EACH	EACH			
W1	516+00~523+00	LT.	20	43	2	2	30	38	634	1	1				
TOTALS			20	43	2	2	30	38	634	1	1				

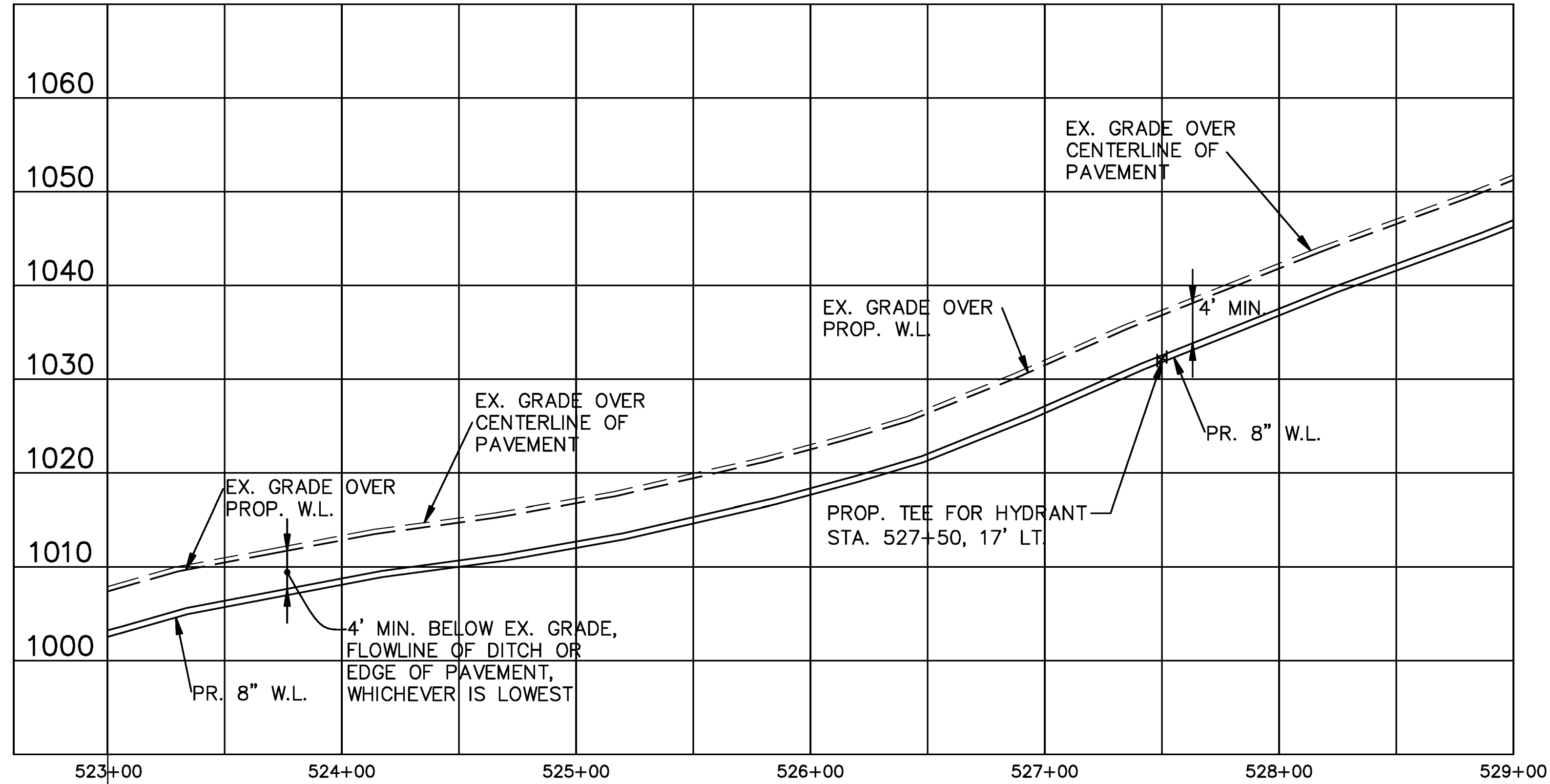
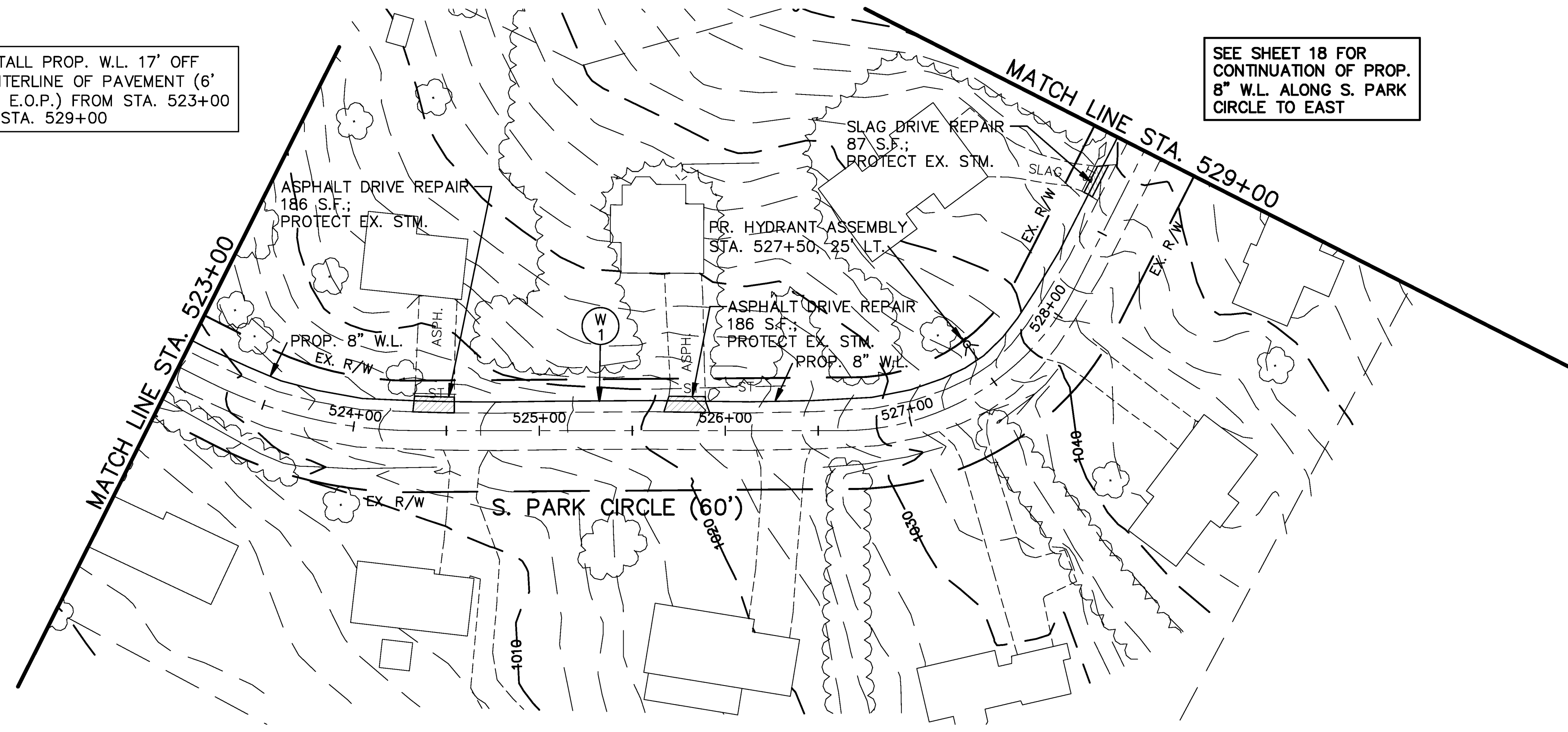
15
30
OLD FREDERICKTOWN ROAD WATERLINE EXTENSION

PLAN AND PROFILE
STA. 516+00.00 TO STA. 523+00.00

CALC BY: J.F.B. 0 40
 DATE: 2/21
 CHKD BY: D.G.D. 20 HORIZONTAL SCALE IN FEET
 DATE: 2/21

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 523+00 TO STA. 529+00

SEE SHEET 18 FOR CONTINUATION OF PROP. 8" W.L. ALONG S. PARK CIRCLE TO EAST



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	PAVEMENT REMOVED	PAVEMENT FULL DEPTH	SAWING	TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (48) A.P.F. (664-22)	8" PVC-C900 DR 14 (48) A.P.F. (664-22)	8" PVC-C900 DR 14 PR 305, WL & APPURT. TYPE B, AS PER PLAN	8" PVC-C900 DR 14 PR 305, WL & APPURT. TYPE C, AS PER PLAN	6" HYDRANT ASSEMBLY AS PER PLAN	SEE SHT. NO.
WT	523+00~529+00	LT.	41	88	4	4	4	4	60	514	1	
TOTALS			41	88	4	4	4	60	60	514	1	

OLD FREDERICKTOWN ROAD WATERLINE EXTENSION STA. 523+00.00 TO STA. 529+00.00

PLAN AND PROFILE

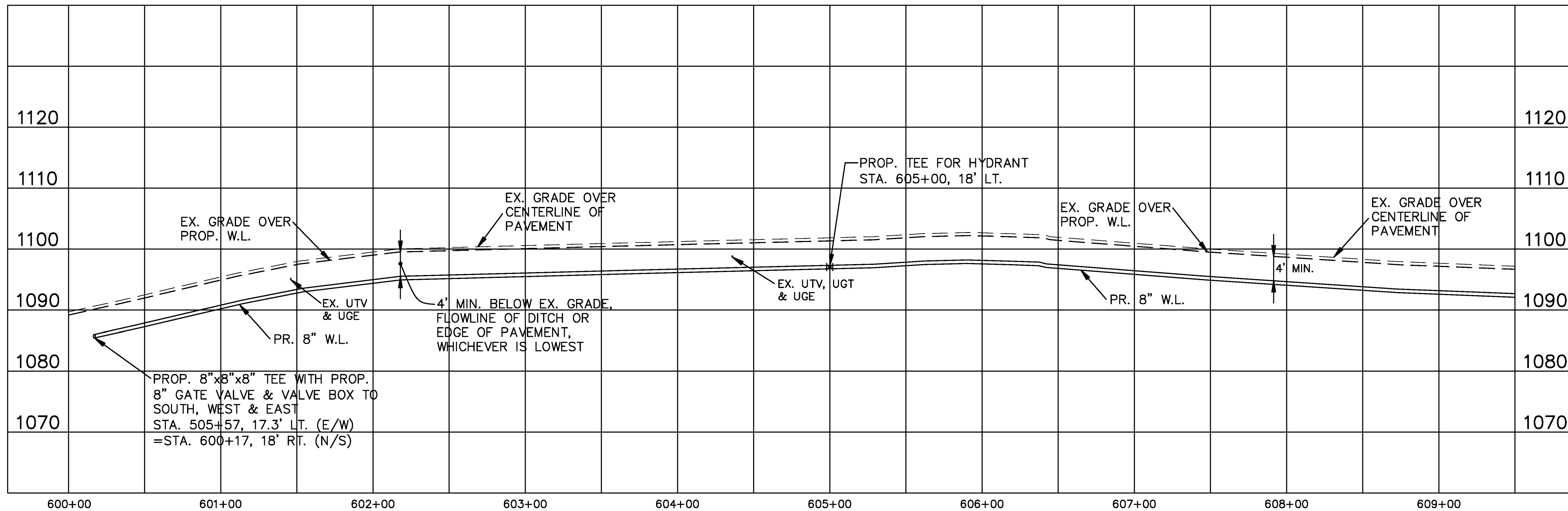
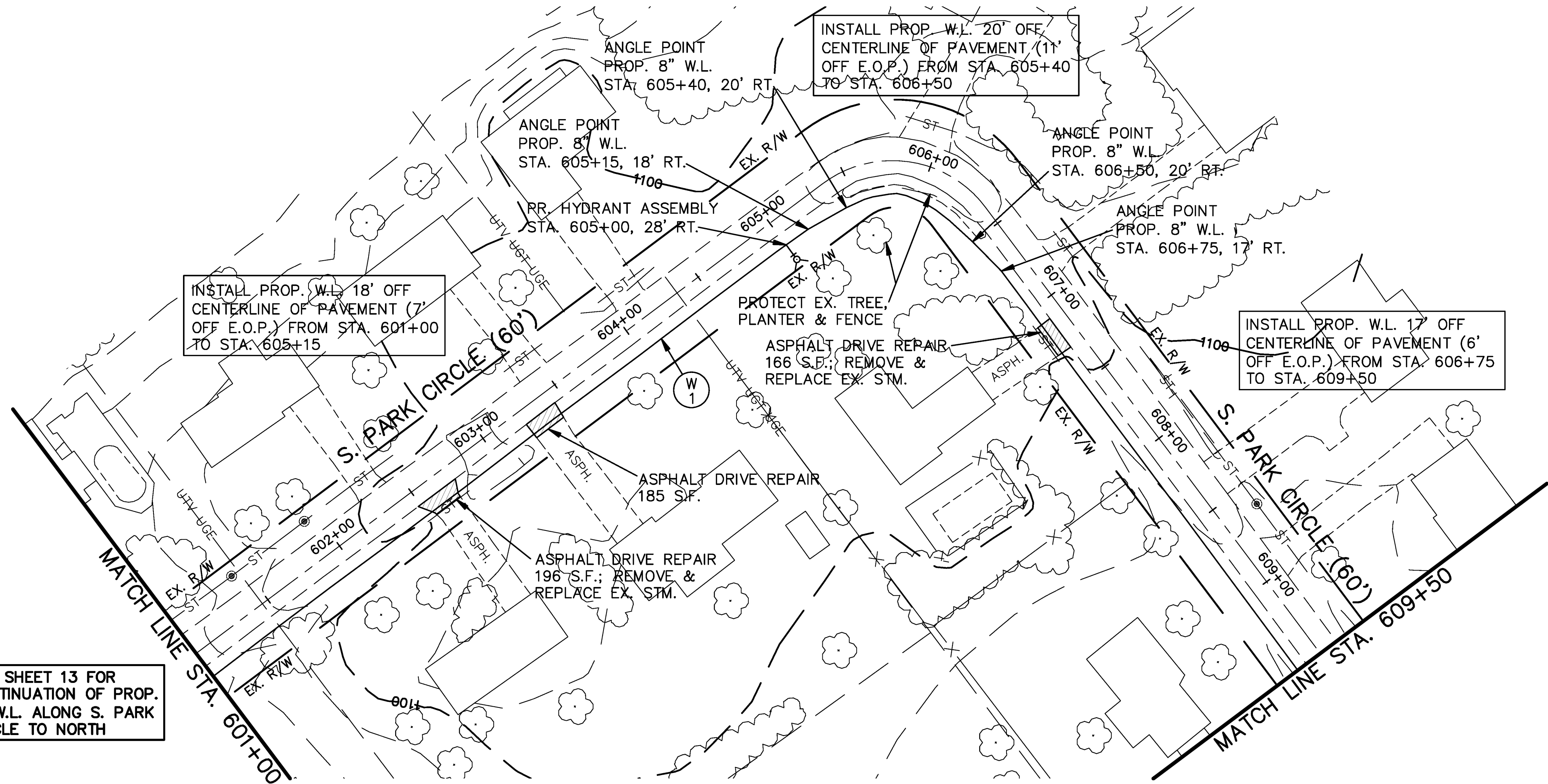
SCALE IN FEET
 HORIZONTAL 80'
 20'
 40'

DATE: 2/21
 CHECKED BY: D.G.D.
 DATE: 2/21

DATE: 2/21
 CHECKED BY: J.F.B.
 DATE: 2/21

16/30

SEE SHEET 13 FOR CONTINUATION OF PROP. 8" W.L. ALONG S. PARK CIRCLE TO NORTH



ESTIMATED QUANTITIES

STATION TO STATION	REF. NO.	RT.	S.Y.	FOOT	GAL.	C.Y.	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT		
601+00~609+50	WI			61	121	5	54	57	764	1							
TOTALS											61	121	5	54	57	764	1

OLD FREDERICKTOWN ROAD WATERLINE EXTENSION

PLAN AND PROFILE STA. 600+00.00 TO STA. 609+50.00

SEE SHT. NO.

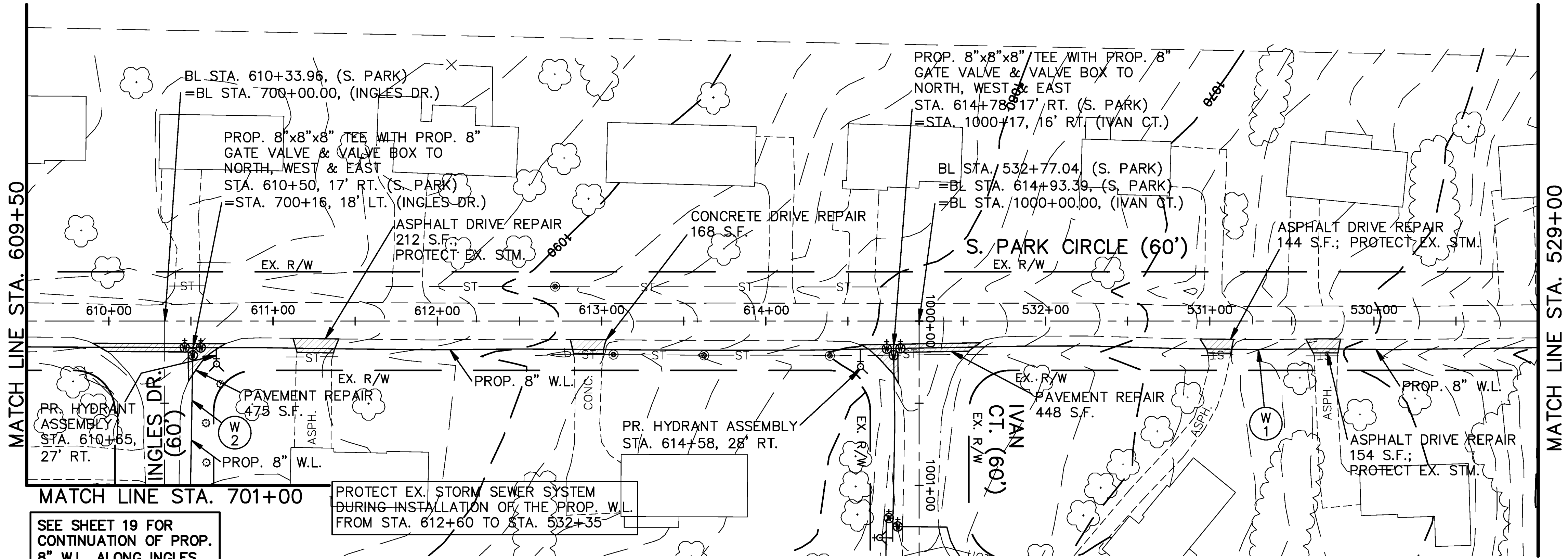
CALC. BY: J.F.B. DATE: 2/21

CHKD. BY: D.G.D. DATE: 2/21

SCALE IN FEET

HORIZONTAL SCALE: 1" = 40'

VERTICAL SCALE: 1" = 10'



SEE SHEET 19 FOR CONTINUATION OF PROP. 8" W.L. ALONG INGLES DRIVE TO NORTH

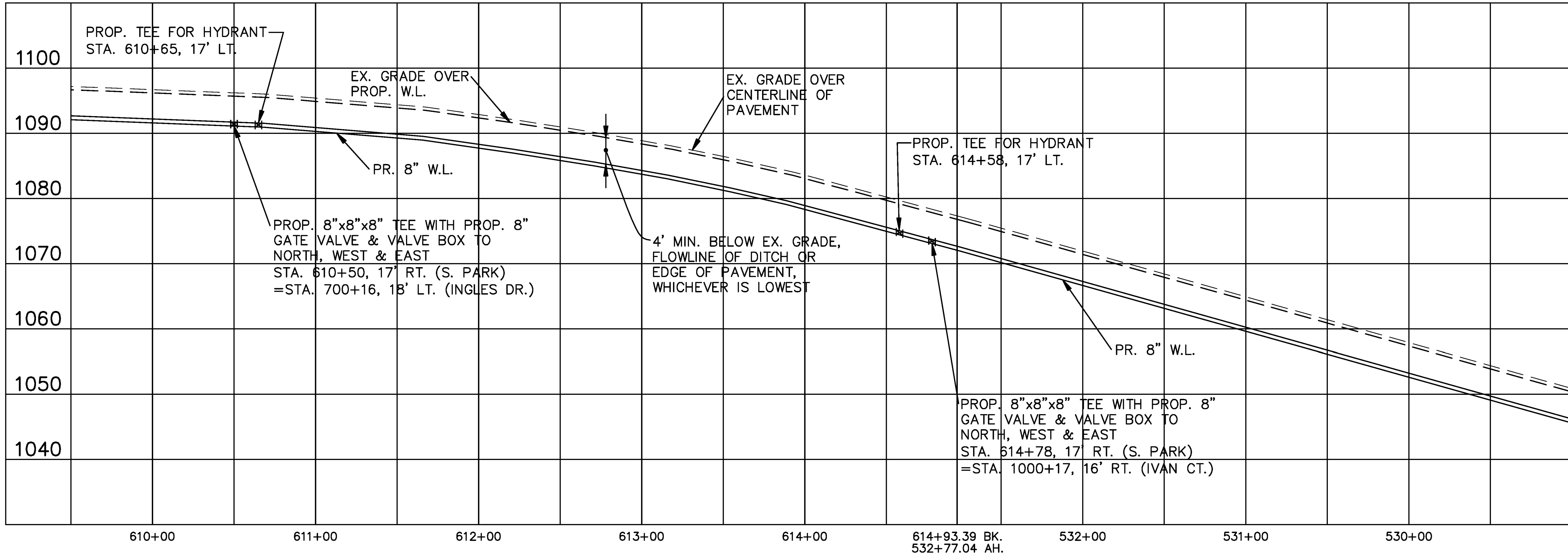
INSTALL PROP. W.L. 18' OFF CENTERLINE OF PAVEMENT (7' OFF E.O.P.) FROM STA. 700+16 TO STA. 701+00

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 612+60 TO STA. 532+35

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 609+50 TO STA. 529+00

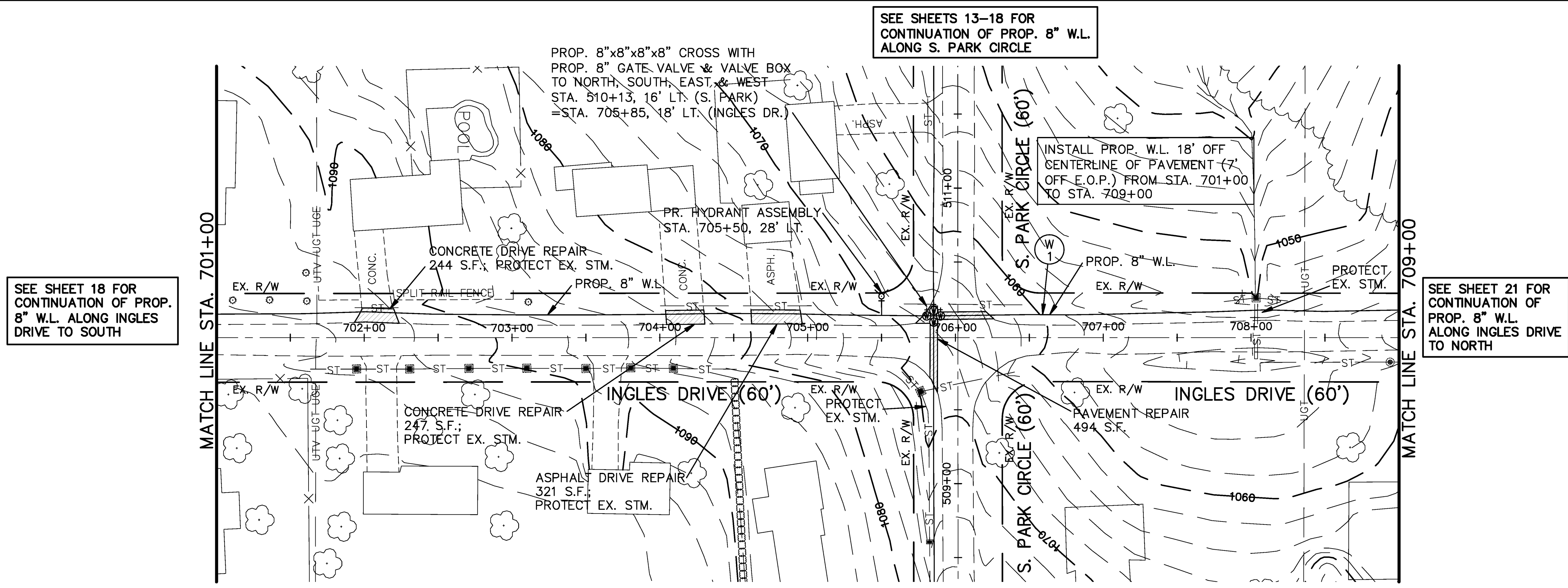
SEE SHEET 24 FOR CONTINUATION OF PROP. 8" W.L. ALONG IVAN CT.

SEE SHEET 16 FOR CONTINUATION OF PROP. 8" W.L. ALONG S. PARK CIRCLE TO WEST



ESTIMATED QUANTITIES

STATION TO STATION	REF. NO.	DESCRIPTION	UNIT	QUANTITY	EST. QUANTITY
609+50~529+00	W1	L/R	178	178	
	W2	LT.	178	178	
700+16~701+00				443	103
				443	103
TOTALS				178	103
638	638	6" HYDRANT ASSEMBLY, AS PER PLAN	EACH	2	2
638	638	8" GATE VALVE AND VALVE BOX, AS PER PLAN	EACH	6	6
638	638	TYPE C, AS PER PLAN	FOOT	709	67
638	638	8" PVC-C900, DR 14, PR 305, WL & APPURT.	FOOT	212	229
638	638	TYPE B, AS PER PLAN	FOOT	17	17
638	638	8" PVC-C900, DR 14, PR 305, WL & APPURT.	FOOT	212	229
452	452	CONCRETE PAVEMENT (NON-REINFORCED) (48) A.P.P. (P64-22)	S.Y.	19	19
441	441	3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, CLASS GC MS	C.Y.	14	14
407	407	TACK COAT	GAL.	14	14
305	305	AS PER PLAN	S.Y.	103	103
255	255	CONCRETE PAVEMENT FULL DEPTH REMOVED	FOOT	443	443
202	202	PAVEMENT REMOVED	S.Y.	178	178

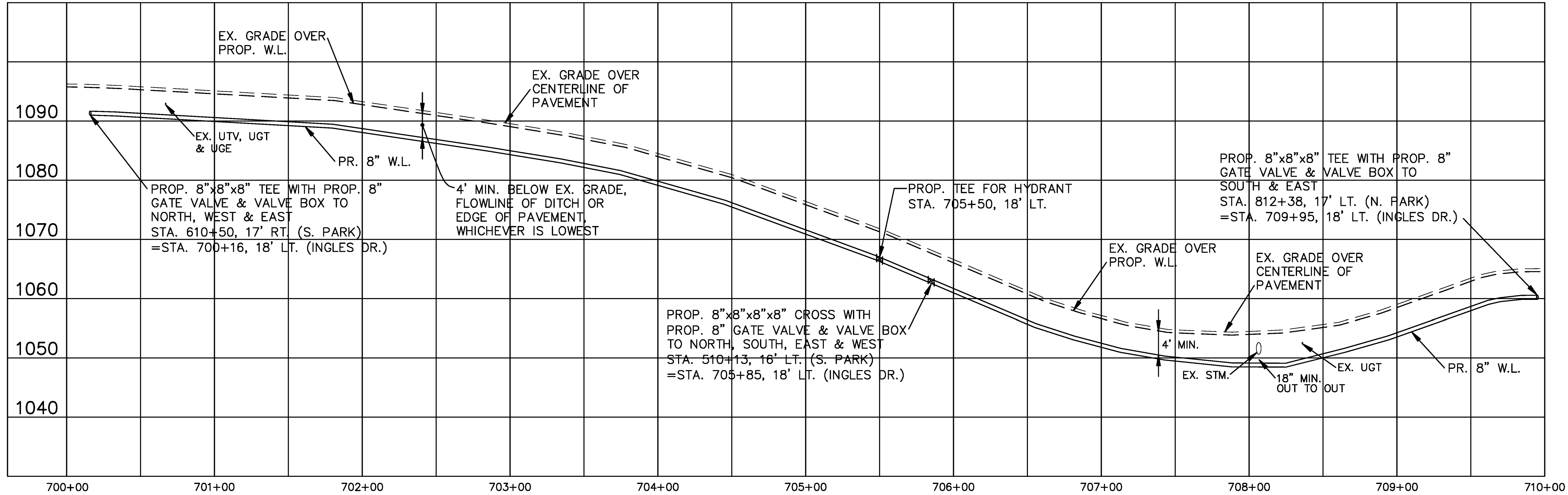


SEE SHEET 18 FOR CONTINUATION OF PROP. 8" W.L. ALONG INGLES DRIVE TO SOUTH

SEE SHEETS 13-18 FOR CONTINUATION OF PROP. 8" W.L. ALONG S. PARK CIRCLE

SEE SHEET 21 FOR CONTINUATION OF PROP. 8" W.L. ALONG INGLES DRIVE TO NORTH

SEE SHEETS 13-18 FOR CONTINUATION OF PROP. 8" W.L. ALONG S. PARK CIRCLE



ESTIMATED QUANTITIES

STATION TO STATION	REF. NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
701+00~709+00	WI	PAVEMENT REMOVED	S.Y.	145		145
		PAVEMENT FULL DEPTH	FOOT	348		348
		CONCRETE CLASS OC MS.	S.Y.	55		55
		BASE CLASS OC MS.	S.Y.	55		55
		TACK COAT	GAL.	8		8
		CONCRETE (448) A.P.P. (P&A-22)	C.Y.	8		8
		NON-REINFORCED CONCRETE PAVEMENT	S.Y.	55		55
		8" PVC-C900 DR 14	FOOT	130		130
		TYPE B, AS PER PLAN	FOOT	672		672
		PR 305, W.L. & APPURT.	FOOT	672		672
		TYPE C, AS PER PLAN	FOOT	4		4
		8" GATE VALVE AND VALVE BOX	EACH	1		1
		AS PER PLAN				
		6" HYDRANT ASSEMBLY	EACH	1		1
		AS PER PLAN				
TOTALS				145		145

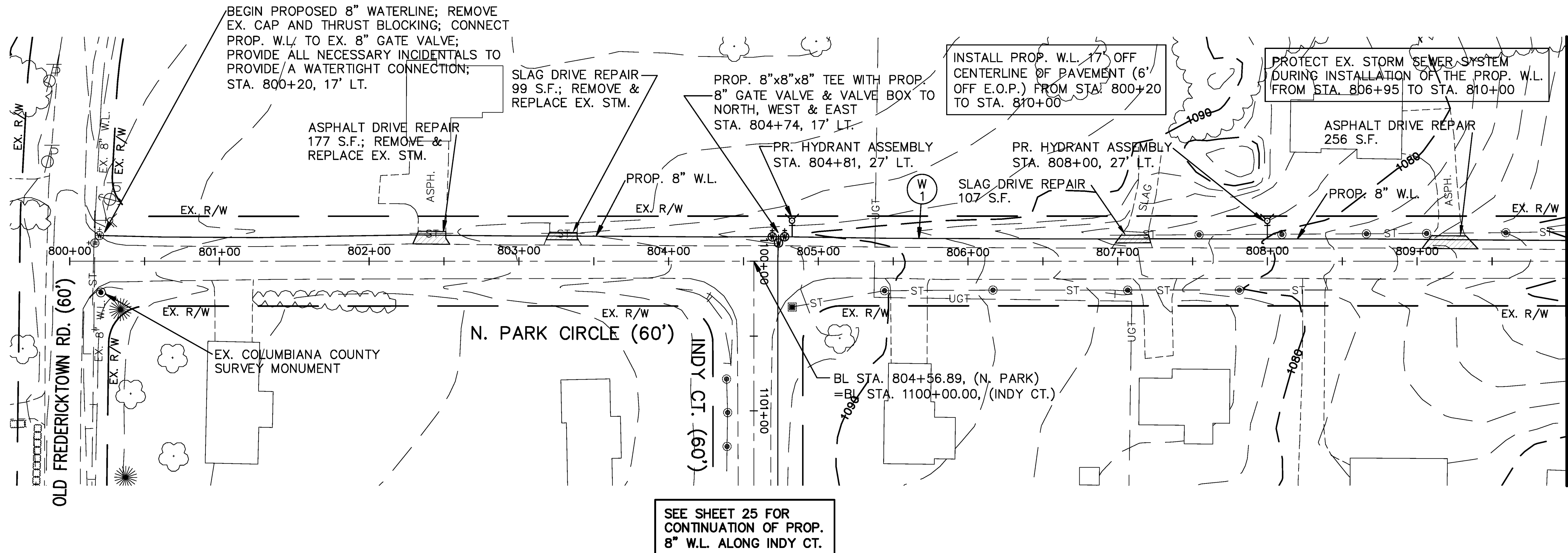
PLAN AND PROFILE
STA. 701+00.00 TO STA. 709+00.00

OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

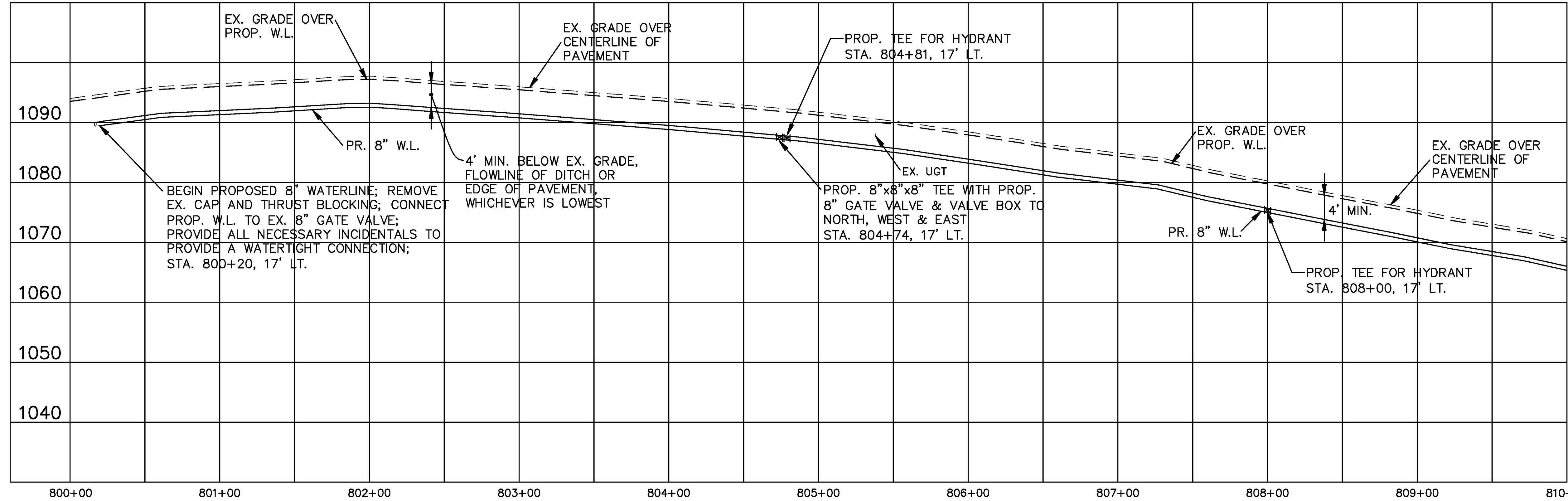
19

30

SCALE IN FEET
HORIZONTAL
DATE: 2/21
BY: J.F.B.
CHECKED BY: D.G.D.
DATE: 2/21



SEE SHEET 25 FOR CONTINUATION OF PROP. 8" W.L. ALONG INDY CT.



ESTIMATED QUANTITIES

STATION TO STATION	REF. NO.	PAVEMENT REMOVED	PAVEMENT FULL DEPTH	SAVINGS	TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (48) A.P.F. (964-22)	12" CONDUIT, TYPE B, AS PER PLAN	8" PVC-C900 DR 14 PR 305, WL & APPURT. TYPE B, AS PER PLAN	8" PVC-C900 DR 14 PR 305, WL & APPURT. TYPE C, AS PER PLAN	8" GATE VALVE AND VALVE BOX AS PER PLAN	6" HYDRANT ASSEMBLY AS PER PLAN	AS PER PLAN
LT.		S.Y.	FOOT	FOOT	GAL.	C.Y.	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT
800+20~810+00	W1	48	104	4	4	4	58	87	893	3	2	
TOTALS		48	104	4	4	4	58	87	893	3	2	

PLAN AND PROFILE
STA. 801+50.00 TO STA. 810+00.00

OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

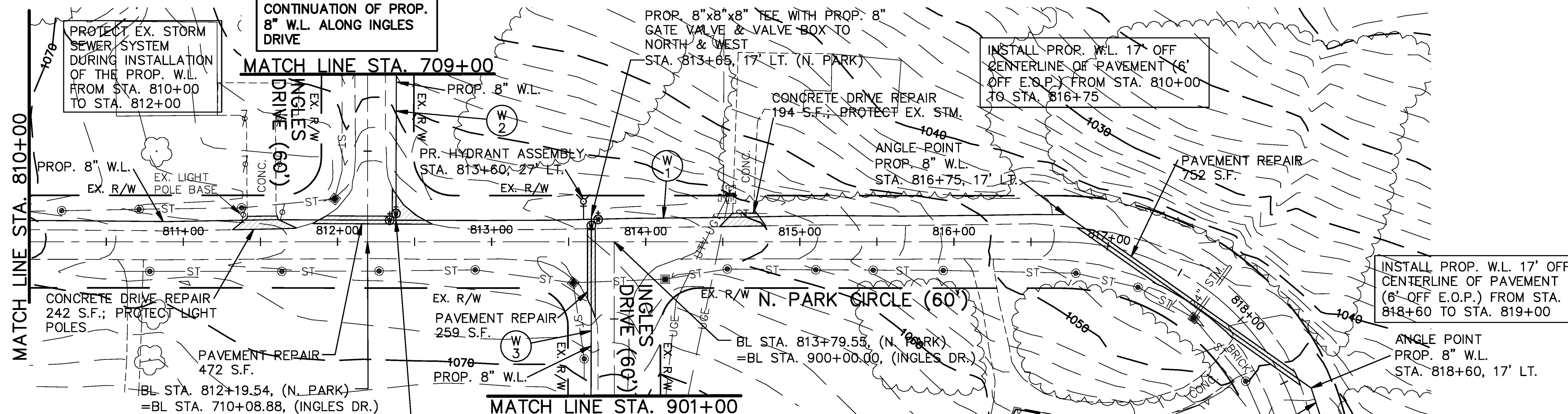
SEE SHT. NO.

SCALE IN FEET

CALC. BY: J.F.B.
DATE: 2/21

CHKD. BY: D.G.D.
DATE: 2/21

20
30



INSTALL PROP. W.L. 18' OFF CENTERLINE OF PAVEMENT (7' OFF E.O.P.) FROM STA. 709+00 TO STA. 709+95

SEE SHEET 19 FOR CONTINUATION OF PROP. 8" W.L. ALONG INGLES DRIVE

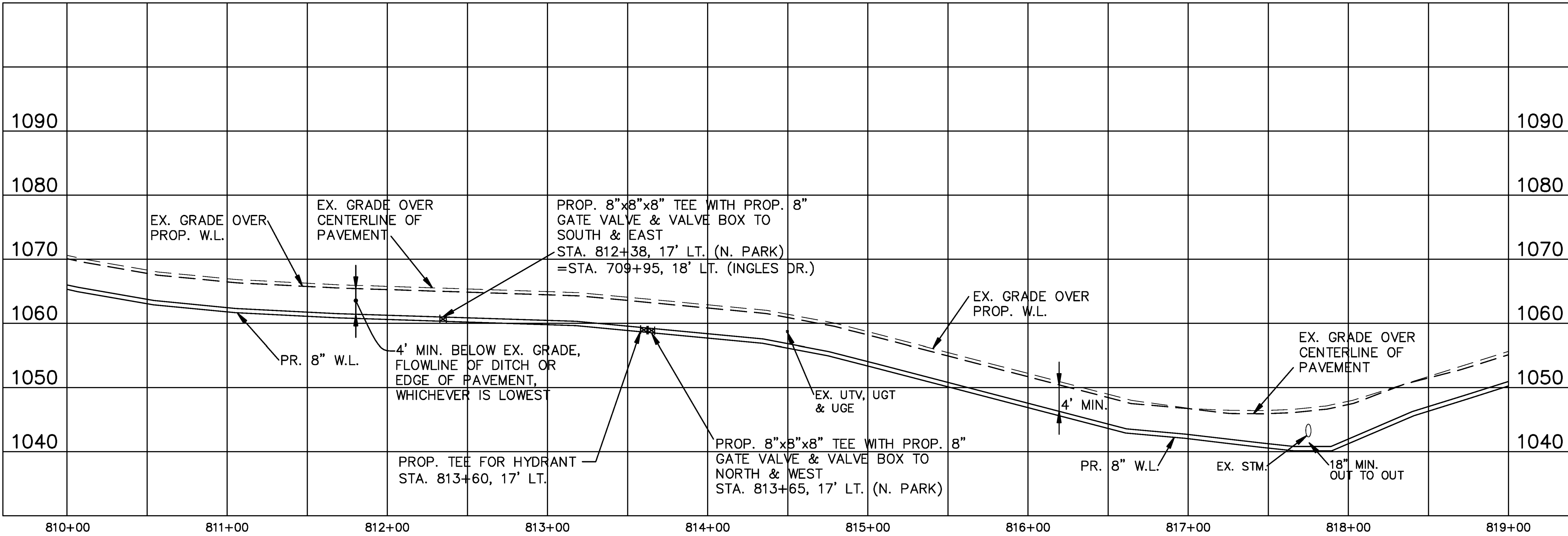
INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 810+00 TO STA. 816+75

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 818+60 TO STA. 819+00

SEE SHEET 23 FOR CONTINUATION OF PROP. 8" W.L. ALONG INGLES DRIVE

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 900+25 TO STA. 901+00

INSTALL PROP. W.L. 4.5' OFF E.O.P. FROM STA. 899+85 TO STA. 901+00



ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	DESCRIPTION	QTY	UNIT
W1	810+00~819+00	L/R PAVEMENT REMOVED	185	S.Y.
W2	709+00~709+95	L/R TACK COAT	137	S.Y.
W3	900+00~901+00	R/T PAVEMENT REMOVED	29	RT.
TOTALS			214	



PLAN AND PROFILE
STA. 810+00.00 TO STA. 819+00.00

OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 819+00 TO STA. 821+30

SEE SHEET 26 FOR CONTINUATION OF PROP. 8" W.L. ALONG PARKVIEW DR.

ASPHALT DRIVE REPAIR 189 S.F.; REMOVE & REPLACE EX. STM.

ANGLE POINT PROP. 8" W.L. STA. 821+30, 17' LT.

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 822+00 TO STA. 827+00

INSTALL PROP. W.L. 15' OFF CENTERLINE OF PAVEMENT (5' OFF E.O.P.) FROM STA. 823+00 TO STA. 827+00

PAVEMENT REPAIR 350 S.F.

PR. HYDRANT ASSEMBLY STA. 819+90, 27' LT.

PROP. 8" W.L.

MATCH LINE STA. 819+00

PROP. 8"x8"x8" TEE WITH PROP. 8" GATE VALVE & VALVE BOX TO NORTH, SOUTH & WEST STA. 820+62, 17' LT. (N. PARK) =STA. 1200+18, 17' RT. (PRKVV)

BL STA. 820+43.08, (N. PARK) =BL STA. 1200+00.00, (PARKVIEW)

PAVEMENT REPAIR 255 S.F.
PAVEMENT REPAIR 172 S.F.

CONCRETE DRIVE REPAIR 288 S.F.

PR. HYDRANT ASSEMBLY STA. 825+75, 27' RT.

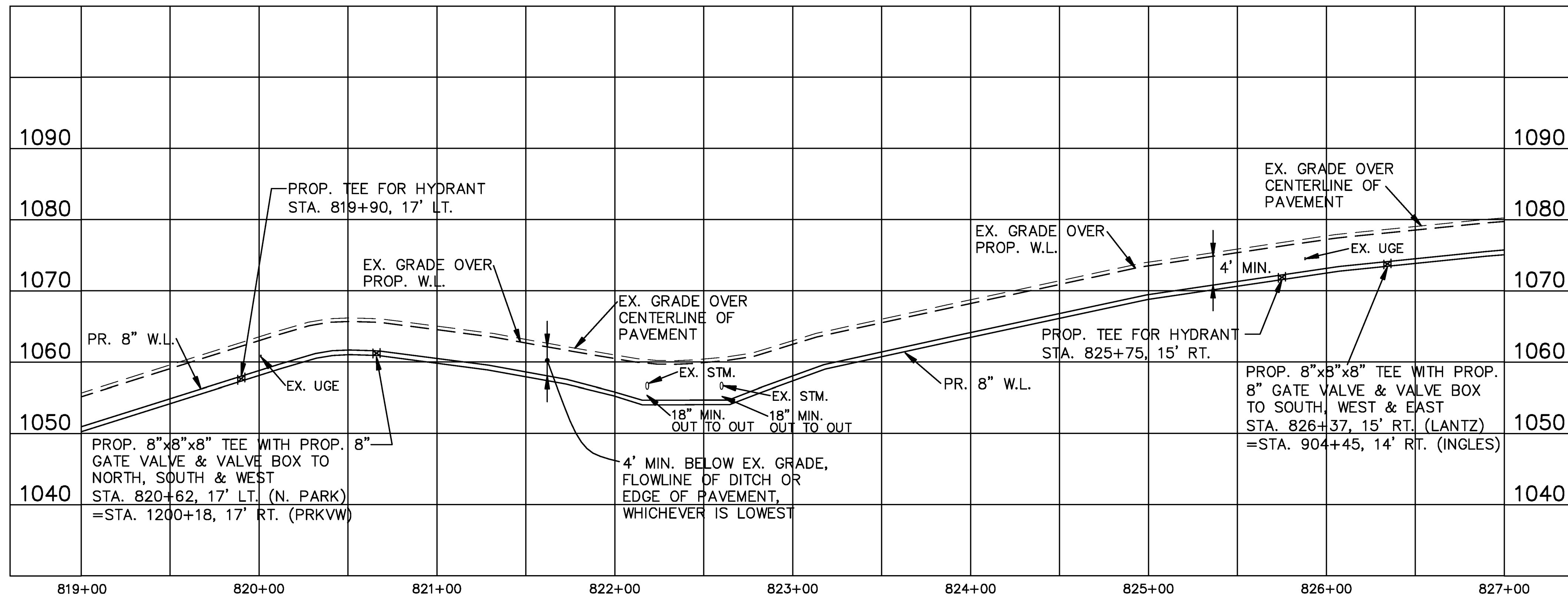
PAVEMENT REPAIR 479 S.F.

SEE SHEET 23 FOR CONTINUATION OF PROP. 8" W.L. ALONG INGLES DRIVE

INSTALL PROP. W.L. 4.5' OFF E.O.P. FROM STA. 904+00 TO STA. 904+45

BL STA. 826+20.49, (LANTZ) =BL STA. 904+60.39, (INGLES)

PROP. 8"x8"x8" TEE WITH PROP. 8" GATE VALVE & VALVE BOX TO SOUTH, WEST & EAST STA. 826+37, 15' RT. (LANTZ) =STA. 904+45, 14' RT. (INGLES)



819+00 820+00 821+00 822+00 823+00 824+00 825+00 826+00 827+00

ESTIMATED QUANTITIES

SEE SHEET NO.	STATION TO STATION	REF. NO.	DESCRIPTION	UNIT	QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY	EST. QTY
	819+00~827+00	W1	PAVEMENT REMOVED	S.F.	193	577	140			
	819+00~827+00	W2	PAVEMENT FULL DEPTH	S.F.	193	577	140			
	819+00~827+00		BASE CLASS OC MS	S.F.	193	577	140			
	819+00~827+00		CONCRETE CLASS OC MS	S.F.	193	577	140			
	819+00~827+00		AS PER PLAN	S.F.	193	577	140			
	819+00~827+00		TACK COAT	S.F.	193	577	140			
	819+00~827+00		3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) A.P.P. (P64-22)	S.F.	193	577	140			
	819+00~827+00		6" NON-REINFORCED CONCRETE PAVEMENT CLASS OC MS	S.F.	193	577	140			
	819+00~827+00		12" CONDUIT, TYPE B, AS PER PLAN	FOOT	30	30				
	819+00~827+00		8" PVC-C900, DR 14, TYPE B, AS PER PLAN	FOOT	313	313				
	819+00~827+00		PR 305, WL & APPURT.	FOOT	18	18				
	819+00~827+00		8" GATE VALVE AND VALVE BOX, AS PER PLAN	EA	6	6				
	819+00~827+00		6" HYDRANT ASSEMBLY, AS PER PLAN	EA	2	2				
	819+00~827+00		AS PER PLAN	EA	2	2				
	TOTALS				193	577	140			

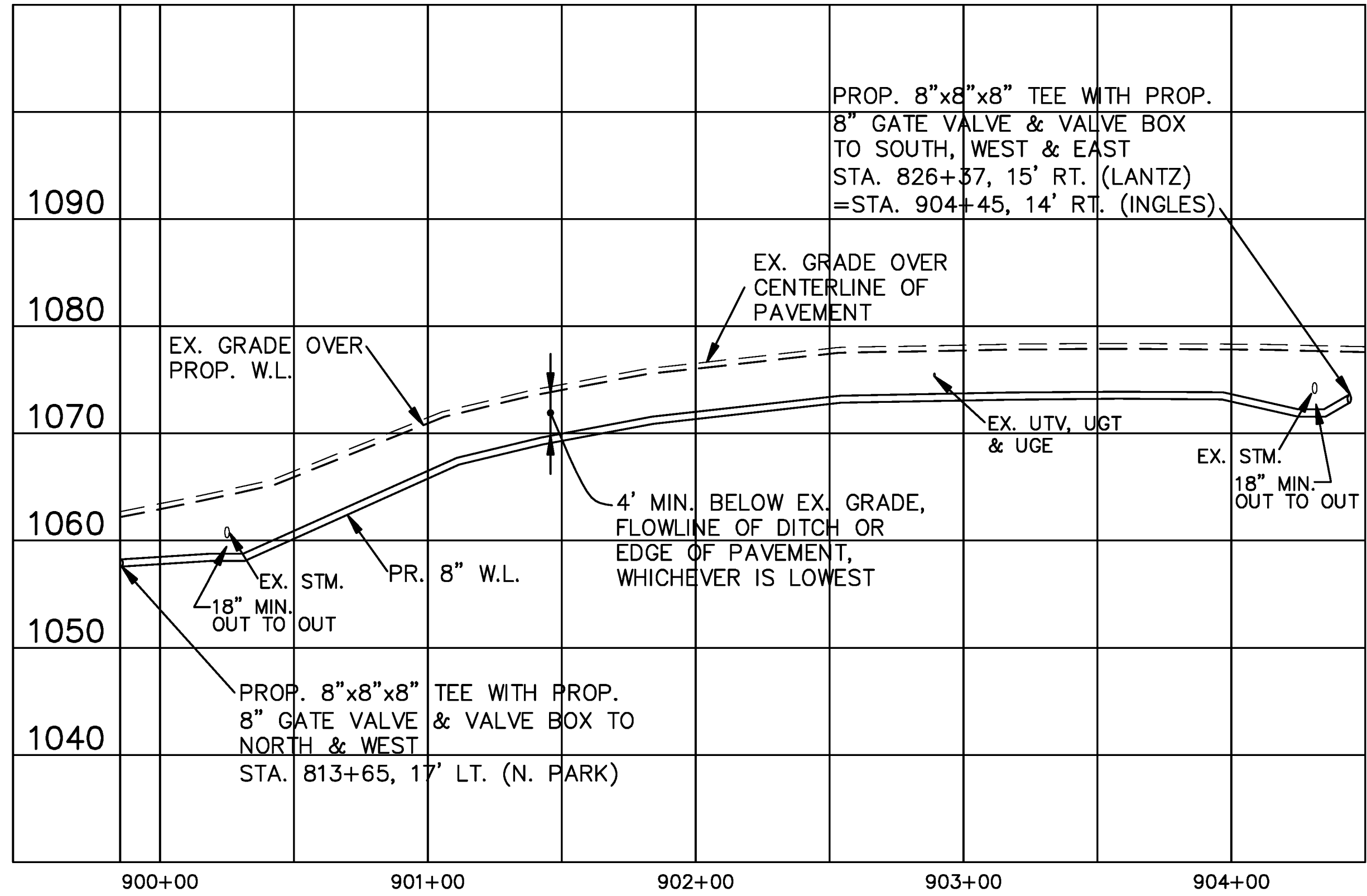
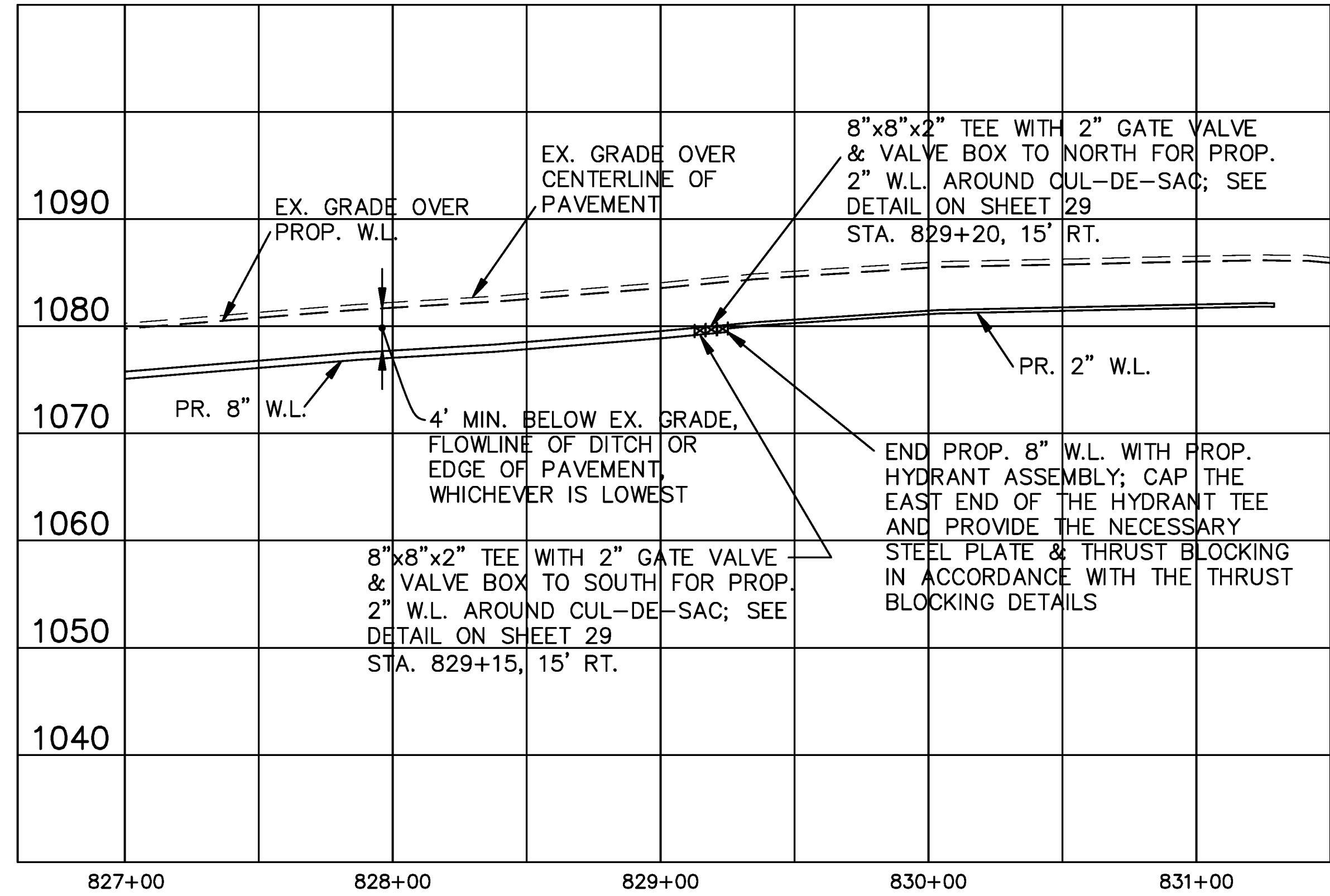
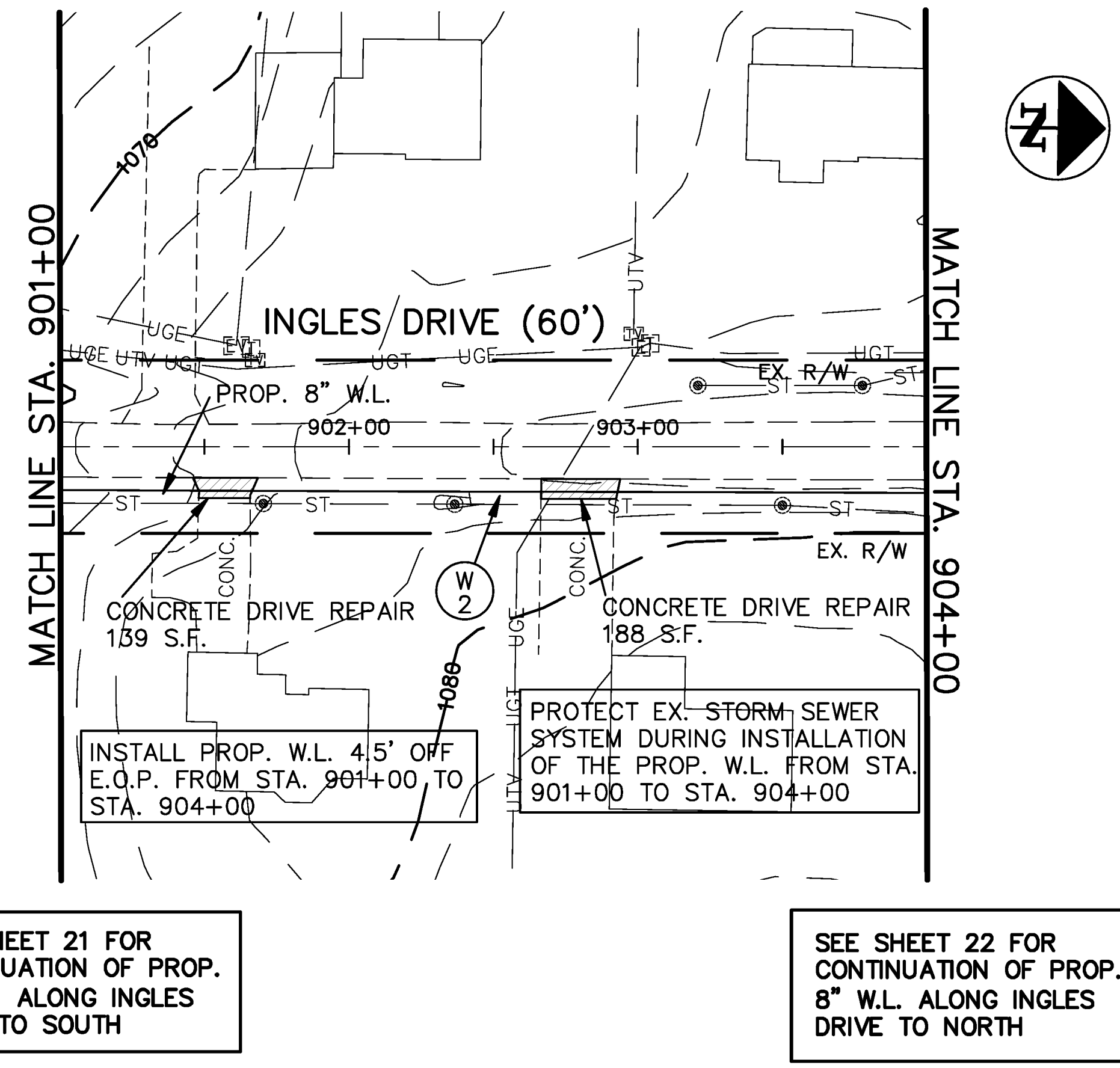
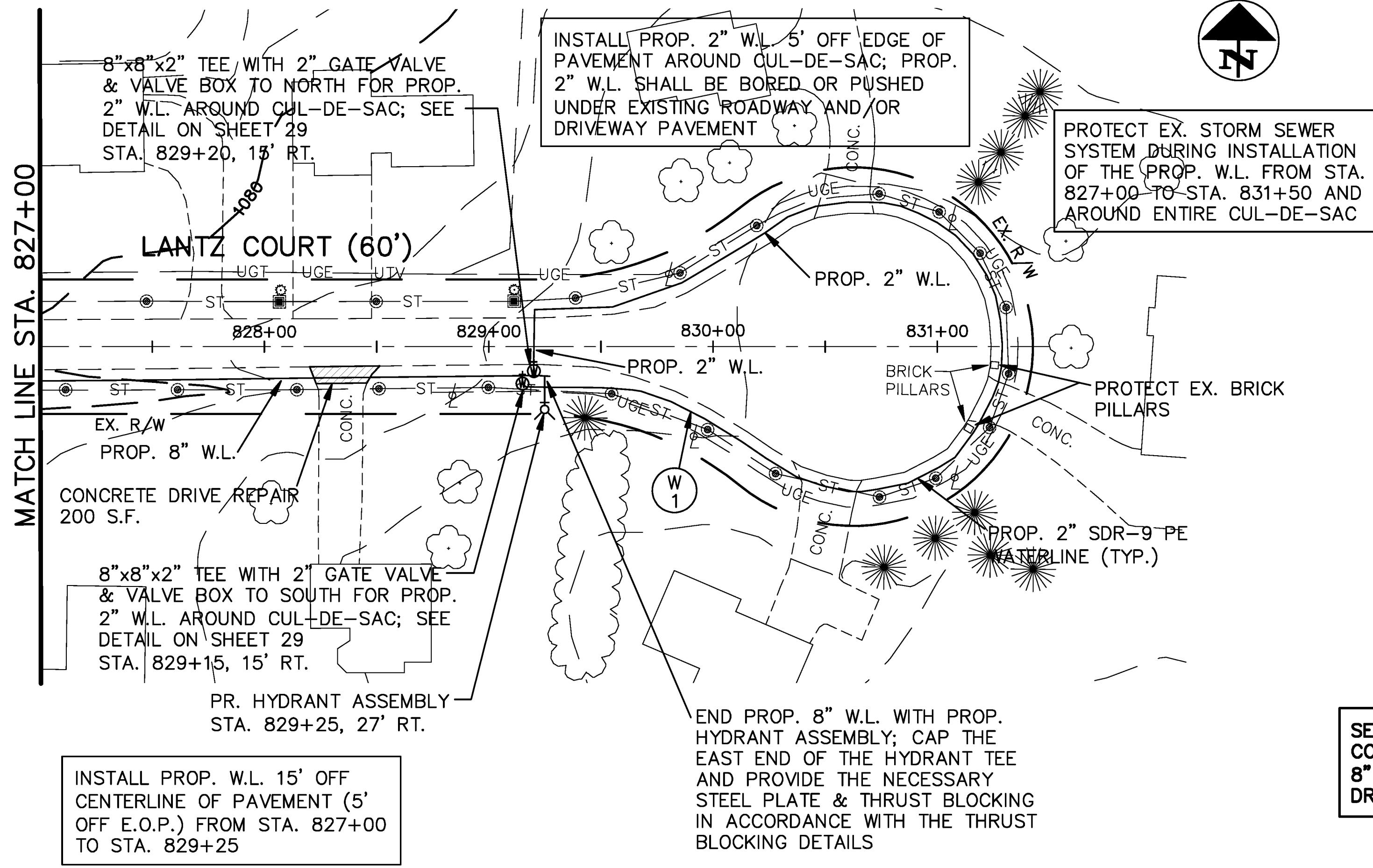
PLAN AND PROFILE
STA. 819+00.00 TO STA. 827+00.00

OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

22
30

SCALE IN FEET
HORIZONTAL 80'
VERTICAL 20'

DATE: 2/21
CHK'D: J.F.B.
DATE: 2/21
BY: D.G.D.
DATE: 2/21



ESTIMATED QUANTITIES		PLAN AND PROFILE	
STATION TO STATION	SIDE	STATION	PROFILE
827+00~831+50	R/L	23	55
901+00~904+00	RT.	37	95
TOTALS		60	150
REF. NO.		W1	827+00~831+50
		W2	901+00~904+00
			PAVEMENT REMOVED
			FULL DEPTH PAVEMENT
			NON-REINFORCED CONCRETE PAVEMENT
			CLASS CC MS
			2\"/>



OLD FREDERICKTOWN ROAD WATERLINE EXTENSION
 STA. 827+00 TO STA. 831+50; STA. 901+00 TO STA. 904+00

SEE SHEET 18 FOR CONTINUATION OF PROP. 8" W.L. ALONG S. PARK CIRCLE TO WEST

INSTALL PROP. W.L. 16' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 1000+00 TO STA. 1001+30

BL STA. 532+77.04, (S. PARK)
=BL STA. 614+93.39, (S. PARK)
=BL STA. 1000+00.00, (IVAN CT.)

PROP. 8"x8"x8" TEE WITH PROP. 8" GATE VALVE & VALVE BOX TO NORTH, WEST & EAST
STA. 614+78, 17' RT. (S. PARK)
=STA. 1000+17, 16' RT. (IVAN CT.)

SEE SHEET 18 FOR CONTINUATION OF PROP. 8" W.L. ALONG S. PARK CIRCLE TO EAST

8"x8"x2" TEE WITH 2" GATE VALVE & VALVE BOX TO WEST FOR PROP. 2" W.L. AROUND CUL-DE-SAC; SEE DETAIL ON SHEET 29
STA. 1001+25, 16' RT.

INSTALL PROP. 2" W.L. 5' OFF EDGE OF PAVEMENT AROUND CUL-DE-SAC; PROP. 2" W.L. SHALL BE BORED OR PUSHED UNDER EXISTING ROADWAY AND/OR DRIVEWAY PAVEMENT

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 1000+00 TO STA. 1003+00 AND AROUND ENTIRE CUL-DE-SAC

PR. HYDRANT ASSEMBLY
STA. 1001+30, 24' RT.

8"x8"x2" TEE WITH 2" GATE VALVE & VALVE BOX TO EAST FOR PROP. 2" W.L. AROUND CUL-DE-SAC; SEE DETAIL ON SHEET 29
STA. 1001+20, 16' RT.

1110	PROP. 8"x8"x8" TEE WITH PROP. 8" GATE VALVE & VALVE BOX TO NORTH, WEST & EAST STA. 614+78, 17' RT. (S. PARK) =STA. 1000+17, 16' RT. (IVAN CT.)
1100	8"x8"x2" TEE WITH 2" GATE VALVE & VALVE BOX TO WEST FOR PROP. 2" W.L. AROUND CUL-DE-SAC; SEE DETAIL ON SHEET 29 STA. 1001+25, 16' RT.
1090	EX. GRADE OVER PROP. W.L.
1080	PR. 2" W.L.
1070	EX. GRADE OVER CENTERLINE OF PAVEMENT
1060	PR. 8" W.L.
1050	4' MIN. BELOW EX. GRADE, FLOWLINE OF DITCH OR EDGE OF PAVEMENT, WHICHEVER IS LOWEST
	END PROP. 8" W.L. WITH PROP. HYDRANT ASSEMBLY; CAP THE NORTH END OF THE HYDRANT TEE AND PROVIDE THE NECESSARY STEEL PLATE & THRUST BLOCKING IN ACCORDANCE WITH THE THRUST BLOCKING DETAILS
	8"x8"x2" TEE WITH 2" GATE VALVE & VALVE BOX TO EAST FOR PROP. 2" W.L. AROUND CUL-DE-SAC; SEE DETAIL ON SHEET 29 STA. 1001+20, 16' RT.

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	SIDE	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	SEE SHT. NO.
638	1000+00~1003+00	R/L	532	101	17	101	17	101	2	
TOTALS										
2" SDR-9, PE W.L. & APPURT. AS PER PLAN 8" PVC-C900, DR 14 TYPE B, AS PER PLAN PR 305, WL & APPURT. AS PER PLAN 8" PVC-C900, DR 14 TYPE C, AS PER PLAN PR 305, WL & APPURT. AS PER PLAN 2" GATE VALVE AND VALVE BOX AS PER PLAN 6" HYDRANT ASSEMBLY AS PER PLAN 6" HYDRANT ASSEMBLY AS PER PLAN										

PLAN AND PROFILE

STA. 1000+00.00 TO STA. 1003+00.00

OLD FREDERICKTOWN ROAD WATERLINE EXTENSION

24
30

SEE SHEET 20 FOR CONTINUATION OF PROP. 8" W.L. ALONG N. PARK CIRCLE TO WEST

INSTALL PROP. W.L. 16' OFF CENTERLINE OF PAVEMENT (4.5' OFF E.O.P.) FROM STA. 1100+00 TO STA. 1103+25

END PROP. 8" W.L. WITH PROP. HYDRANT ASSEMBLY; CAP THE NORTH END OF THE HYDRANT TEE AND PROVIDE THE NECESSARY STEEL PLATE & THRUST BLOCKING IN ACCORDANCE WITH THE THRUST BLOCKING DETAILS

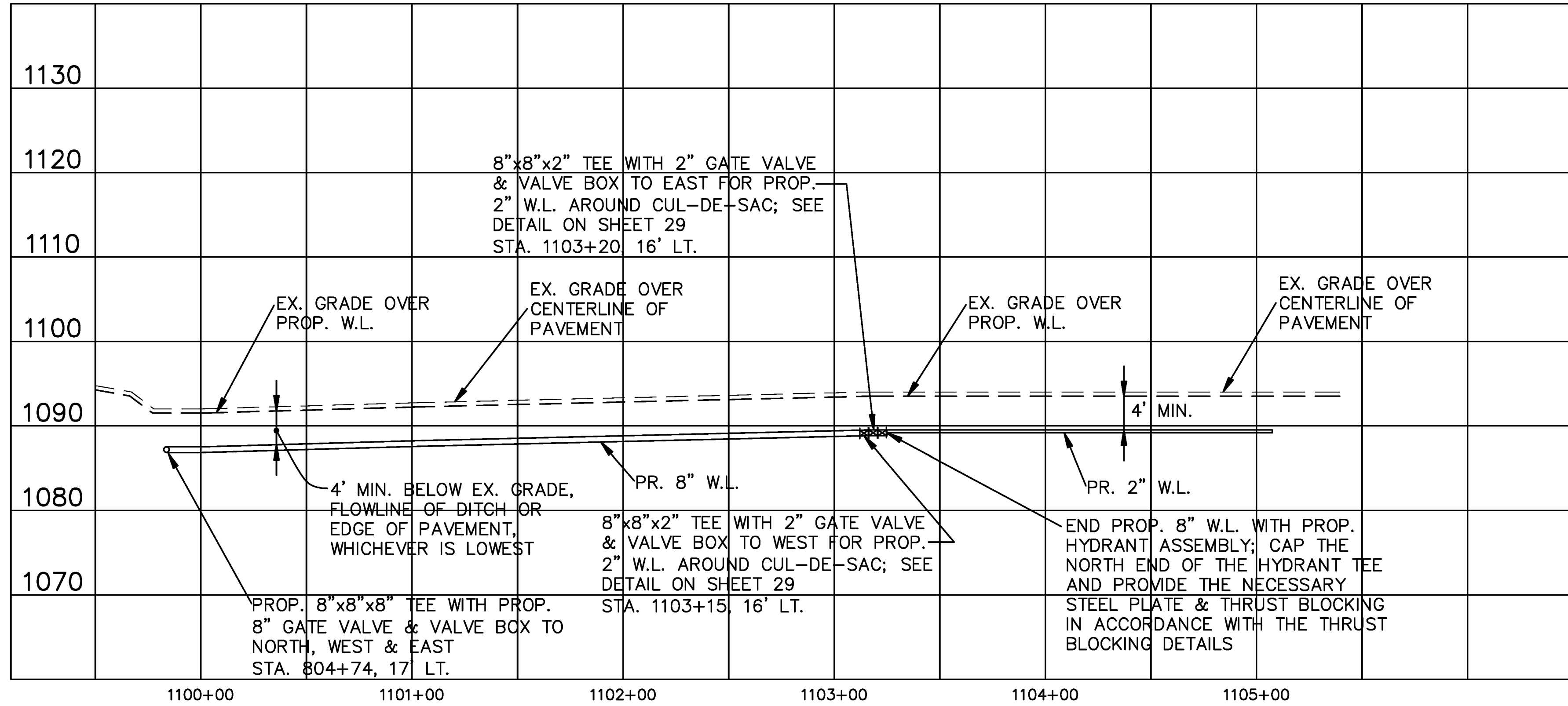
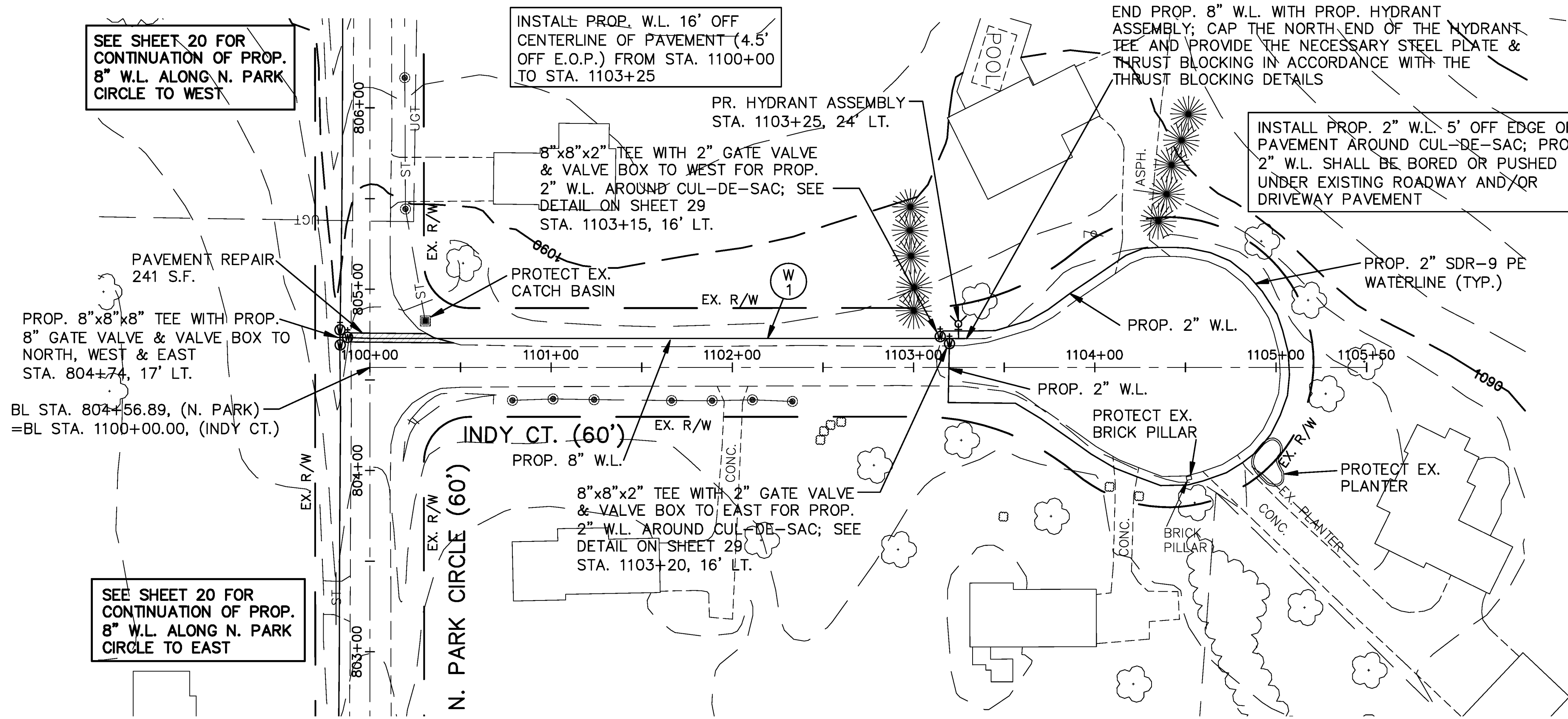
INSTALL PROP. 2" W.L. 5' OFF EDGE OF PAVEMENT AROUND CUL-DE-SAC; PROP. 2" W.L. SHALL BE BORED OR PUSHED UNDER EXISTING ROADWAY AND/OR DRIVEWAY PAVEMENT

PAVEMENT REPAIR 241 S.F.

PROP. 8"x8"x8" TEE WITH PROP. 8" GATE VALVE & VALVE BOX TO NORTH, WEST & EAST STA. 804+74, 17' LT.

BL STA. 804+56.89, (N. PARK) =BL STA. 1100+00.00, (INDY CT.)

SEE SHEET 20 FOR CONTINUATION OF PROP. 8" W.L. ALONG N. PARK CIRCLE TO EAST



ESTIMATED QUANTITIES

SEE SHT. NO.	STATION TO STATION	REF. NO.	QUANTITY	UNIT	ESTIMATED QUANTITY	UNIT	ESTIMATED QUANTITY
	1100+00~1105+50	WI	27	FOOT	27	FOOT	27
			108	SAWING	108	SAWING	108
			27	REMOVED PAVEMENT	27	REMOVED PAVEMENT	27
			27	CONCRETE	27	CONCRETE	27
			27	BASE CLASS OC MS.	27	BASE CLASS OC MS.	27
			2	TACK COAT	2	TACK COAT	2
			2	ASPHALT CONCRETE	2	ASPHALT CONCRETE	2
			2	(448) A.P.P. (P64-22)	2	(448) A.P.P. (P64-22)	2
			519	2" SDR-9 PE WL & APPURT.	519	2" SDR-9 PE WL & APPURT.	519
			53	8" PVC-C900 DR 14" TYPE B AS PER PLAN	53	8" PVC-C900 DR 14" TYPE B AS PER PLAN	53
			290	PR 305, WL & APPURT. TYPE C AS PER PLAN	290	PR 305, WL & APPURT. TYPE C AS PER PLAN	290
			2	2" GATE VALVE AND VALVE BOX AS PER PLAN	2	2" GATE VALVE AND VALVE BOX AS PER PLAN	2
			1	6" HYDRANT ASSEMBLY AS PER PLAN	1	6" HYDRANT ASSEMBLY AS PER PLAN	1
TOTALS							

DATE: 2/21
CHK'D BY: D.G.D.
DATE: 2/21

PLAN AND PROFILE
STA. 1100+00.00 TO STA. 1105+50.00

OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

25
30

SEE SHEET 22 FOR CONTINUATION OF PROP. 8" W.L. ALONG N. PARK CIRCLE

INSTALL PROP. W.L. 17' OFF CENTERLINE OF PAVEMENT (6' OFF E.O.P.) FROM STA. 1200+00 TO STA. 1202+90

INSTALL PROP. 2" W.L. 5' OFF EDGE OF PAVEMENT AROUND CUL-DE-SAC; PROP. 2" W.L. SHALL BE BORED OR PUSHED UNDER EXISTING ROADWAY AND/OR DRIVEWAY PAVEMENT

PROTECT EX. STORM SEWER SYSTEM DURING INSTALLATION OF THE PROP. W.L. FROM STA. 1200+00 TO STA. 1204+50 AND AROUND ENTIRE CUL-DE-SAC

BL STA. 820+43.08, (N. PARK)
=BL STA. 1200+00.00, (PARKVIEW)

PROP. 8"x8"x8" TEE WITH PROP. 8" GATE VALVE & VALVE BOX TO NORTH, SOUTH & WEST
STA. 820+62, 17' LT. (N. PARK)
=STA. 1200+18, 17' RT. (PRKVV)

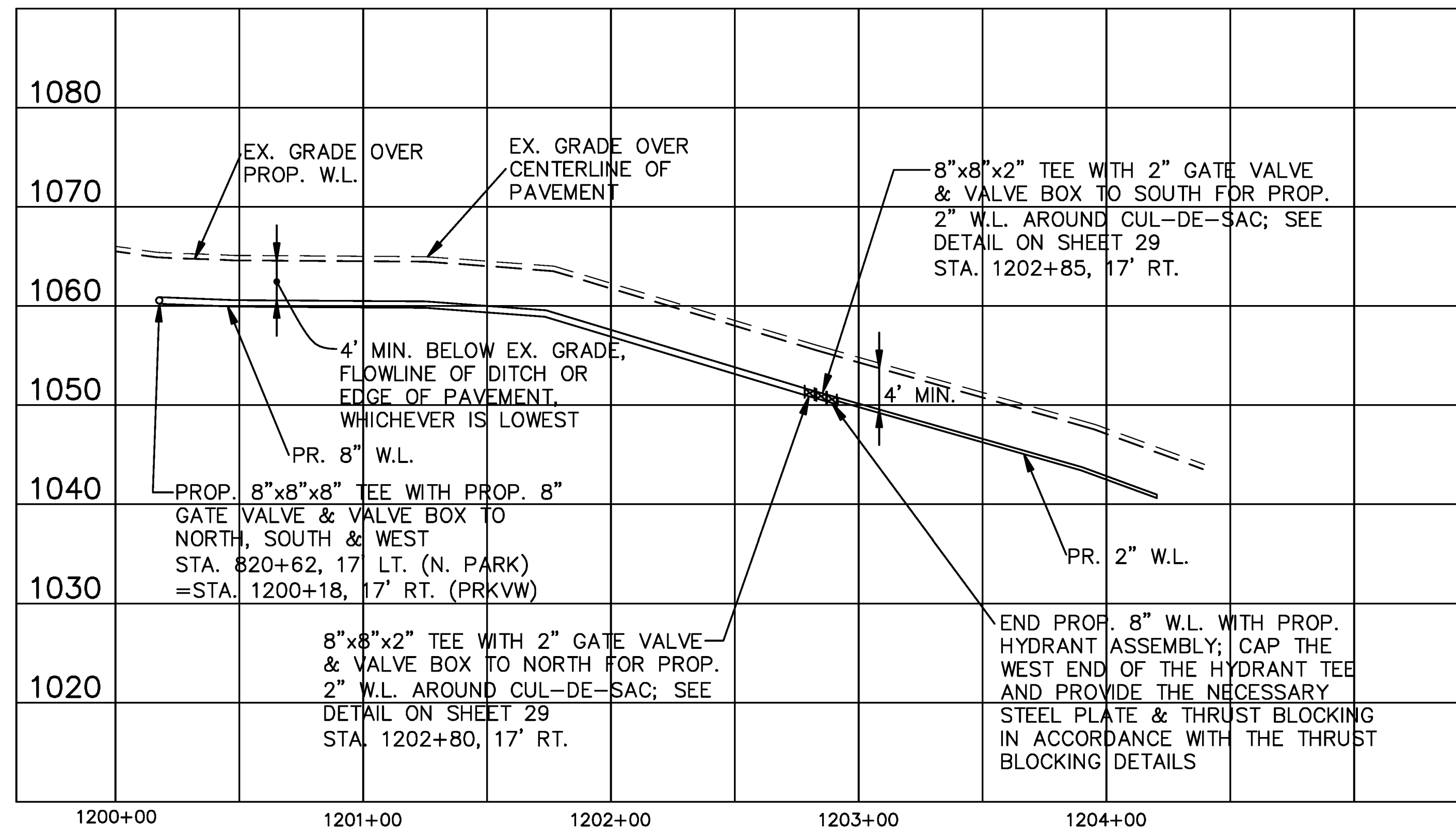
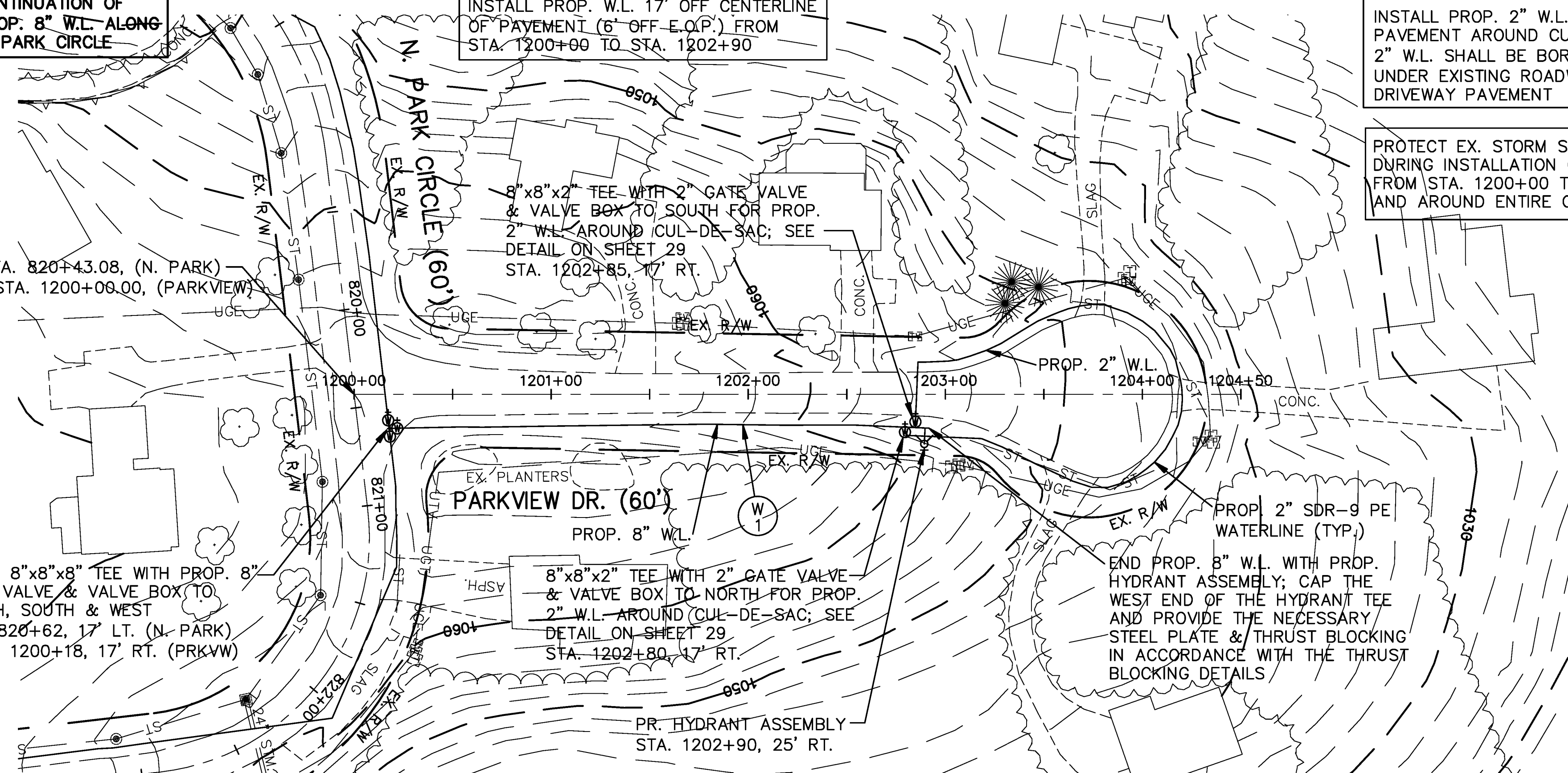
8"x8"x2" TEE WITH 2" GATE VALVE & VALVE BOX TO SOUTH FOR PROP. 2" W.L. AROUND CUL-DE-SAC; SEE DETAIL ON SHEET 29
STA. 1202+85, 17' RT.

8"x8"x2" TEE WITH 2" GATE VALVE & VALVE BOX TO NORTH FOR PROP. 2" W.L. AROUND CUL-DE-SAC; SEE DETAIL ON SHEET 29
STA. 1202+80, 17' RT.

END PROP. 8" W.L. WITH PROP. HYDRANT ASSEMBLY; CAP THE WEST END OF THE HYDRANT TEE AND PROVIDE THE NECESSARY STEEL PLATE & THRUST BLOCKING IN ACCORDANCE WITH THE THRUST BLOCKING DETAILS

PR. HYDRANT ASSEMBLY
STA. 1202+90, 25' RT.

SEE SHEET 22 FOR CONTINUATION OF PROP. 8" W.L. ALONG LANTZ COURT



1200+00 1201+00 1202+00 1203+00 1204+00

ESTIMATED QUANTITIES

REF. NO.	STATION TO STATION	UNIT	QUANTITY	UNIT PRICE	TOTAL	SEE SHT. NO.
638	1200+00~1204+50	W/L	376		376	
638		R/L	376		376	
638		2" SDR-9 PE	8		8	
638		8" PVC-C900 DR 14	8		8	
638		TYPE B, AS PER PLAN				
638		PR 305, WL & APPURT.				
638		TYPE C, AS PER PLAN				
638		PR 305, WL & APPURT.	266		266	
638		2" GATE VALVE AND VALVE BOX	2		2	
638		AS PER PLAN				
638		6" HYDRANT ASSEMBLY	1		1	
638		AS PER PLAN				
TOTALS						

PLAN AND PROFILE
STA. 1200+00.00 TO STA. 1204+50.00

OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

26
30

SCALE IN FEET
HORIZONTAL
DATE: 2/21
BY: D.G.D.
CHECKED: J.F.B.
DATE: 2/21

WATERLINE

- 1.) THE CONTRACTOR SHALL NOTIFY THE BUCKEYE WATER DISTRICT (BWD) 48 HOURS BEFORE STARTING CONSTRUCTION OF THE WATER LINE.
- 2.) ONLY THE BUCKEYE WATER DISTRICT EMPLOYEES MAY OPERATE WATER VALVES OR HYDRANTS. CONTACT THE BUCKEYE WATER DISTRICT (48) HOURS IN ADVANCE TO SCHEDULE VALVE OR HYDRANT OPERATIONS.
- 3.) THE BUCKEYE WATER DISTRICT SHALL APPROVE THE LOCATION OF ALL VALVES AND HYDRANTS PRIOR TO THEIR INSTALLATION AND RESERVES THE RIGHT TO RELOCATE THESE ITEMS AT THEIR DISCRETION.
- 4.) WHERE THE CONTRACTOR IS REQUIRED TO TAP AN EXISTING WATER MAIN, THE WORK SHALL BE DONE ONLY WHEN APPROVED IN ADVANCE BY THE BUCKEYE WATER DISTRICT.
- 5.) MINIMUM GROUND COVER OVER A WATER MAIN & SERVICES SHALL BE FOUR (4) FEET UNLESS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS.
- 6.) THERE SHALL BE (18) INCHES VERTICAL DISTANCE (OUT TO OUT) BETWEEN THE WATER MAIN AND ANY STORM SEWER, SANITARY SEWER, OR FORCE MAIN CROSSING. THERE SHALL BE (10) FEET HORIZONTAL DISTANCE (OUT TO OUT) BETWEEN WATER MAINS AND STORM/SANITARY SEWERS; FIRE HYDRANTS SHALL BE INSTALLED SUCH THAT THE MINIMUM VERTICAL AND HORIZONTAL DISTANCES ARE MAINTAINED.
- 7.) WHEN CROSSING A SANITARY OR STORM SEWER WITH THE NEW WATER MAIN, CROSS WITH A FULL LENGTH OF PIPE, NO JOINTS SHALL BE IN THE AREA OF THIS CROSSING.
- 8.) WATER MAIN MATERIALS SHALL BE 8" POLYVINYL CHLORIDE (PVC) AWWA, C900, PR 305, DR 14, WITH JOINTS CONFORMING TO ASTM D-3139. FITTINGS SHALL BE DUCTILE IRON AWWA C153 (MIN. P.R. 350 PSI) WITH MECHANICAL JOINTS CONFORMING TO AWWA C111. MATERIALS FOR THE 2" WATERLINE AROUND ALL CUL-DE-SACS SHALL BE SDR-9, PE CONDUIT. MATERIALS FOR WATER SERVICES SHALL BE AS SHOWN IN THE SERVICE CONNECTION DETAIL. MINIMUM LENGTH OF ALL WATERLINE CONDUITS SHALL BE (5) FEET.
- 9.) WHENEVER POSSIBLE, A 45 DEGREE BEND SHALL BE THE MAXIMUM ALLOWABLE WHEN ESTABLISHING THE VERTICAL GRADE.
- 10.) WHEN USING BENDS TO ESTABLISH HORIZONTAL LINE AND/OR VERTICAL GRADE OF THE PROPOSED WATER MAIN, THE CONTRACTOR SHALL FURNISH AND INSTALL CONCRETE SUPPORTS OR CONCRETE THRUST BLOCKS AS DIRECTED BY THE ENGINEER AND AS SHOWN IN THE THRUST BLOCKING TABLES AND DETAILS. THE COST OF THE BENDS AND CONCRETE SHALL BE INCLUDED IN THE UNIT OR LUMP SUM PRICES BID FOR THE VARIOUS ITEMS OF THE PROPOSAL.
- 11.) ALL WYES, TEES, CROSSES, STUBS, CAPS, REDUCERS, HORIZONTAL & VERTICAL BENDS, CONCRETE TRUST BLOCKS, TIE-RODS OR RESTRAINED JOINTS, EXCAVATION, BEDDING, BACKFILL, HYDRANT RISERS, HYDRANT SLOPE SUPPORTS, AND ALL INCIDENTALS AS REQUIRED OR DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE VARIOUS WATERLINE ITEMS AND NO OTHER PAYMENT SHALL BE MADE FOR THIS WORK UNLESS STIPULATED IN THE PROPOSAL.
- 12.) INSTALLATION AND PRESSURE TESTING OF THE PVC WATER MAIN SHALL CONFORM WITH AWWA C605.
- 13.) DISINFECTION OF THE WATER MAINS SHALL CONFORM TO AWWA C-651.
- 14.) THE PROPOSED FACILITIES WILL MAINTAIN A MINIMUM 35 PSI PRESSURE DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
- 15.) BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS.
- 16.) ALL PROPOSED WATERLINE VALVE BOXES, HYDRANTS, WATERLINE ACCESS MANHOLES, ETC. SHALL BE INSTALLED TO BE FLUSH WITH FINISHED GRADE.
 - FOR ALL PROPOSED HYDRANTS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ANY NECESSARY DUCTILE IRON HYDRANT RISER EXTENSIONS (OF SUFFICIENT LENGTH) TO PROPERLY ADJUST THE HYDRANTS TO FINISHED GRADE.
 - FOR ALL HYDRANTS, THE CONTRACTOR SHALL PROVIDE ANY NECESSARY SLOPE SUPPORT IN ACCORDANCE WITH THE HYDRANT SLOPE SUPPORT DETAILS ON SHEET 28.
 - FOR ALL PROPOSED VALVE BOXES, THE CONTRACTOR SHALL PROVIDE VALVE BOXES OF SUFFICIENT LENGTH TO ALLOW FOR THE PROPER ADJUSTMENT OF THE VALVE BOXES TO FINISHED GRADE.

SPECIAL NOTE FOR ITEM 611 AND ITEM 638:

THE CONTRACTOR WILL NOT BE REQUIRED TO PROVIDE VIDEO PERFORMANCE INSPECTION OF THE CONDUITS PER SECTION 611.02. THE CONTRACTOR WILL NOT BE REQUIRED TO PERFORM COMPACTION TESTING WITHIN THE WATERLINE TRENCHES OR WITHIN ANY DRAINAGE CONDUIT TRENCH PER SECTION 611.06 AND SUPPLEMENT 1015. THE CONTRACTOR WILL NOT BE REQUIRED TO PROVIDE AN INSTALLATION PLAN FOR THE WATERLINE OR DRAINAGE CONDUIT PER SECTION 611.04-B.

WATERLINE MISCELLANEOUS

ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH OSHAA REGULATIONS AS WELL AS ANY OTHER FEDERAL, STATE, AND LOCAL SAFETY REGULATIONS.

IF AS THE RESULT OF ANY INSPECTION BEFORE FINAL ACCEPTANCE OF THE WORK IT IS FOUND THAT ANY SECTION OF ANY WATERLINE HAS UNDULY SETTLED OR DEFLECTED BEYOND ALLOWABLE LIMITS, JOINTS HAVE SEPARATED, OR THE PIPE IS FOUND CRACKED, BROKEN OR MISSHAPEN, THE CONTRACTOR SHALL CAUSE SUCH DEFECTIVE OR INFERIOR WORK TO BE REMOVED AND REPLACED OR SATISFACTORILY REPAIRED BY PROPER MATERIAL AND WORKMANSHIP WITHOUT EXTRA COMPENSATION FOR LABOR, EQUIPMENT, AND MATERIALS REQUIRED.

ANY EXISTING PIPE, CONDUIT, DRIVEWAY CULVERT, SIGN, YARD LIGHT, MAILBOX, PAPER BOX, SPRINKLER, FENCE, OR LANDSCAPE ITEM ETC. DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN A WORKMANLIKE MANNER SUCH THAT THE ITEM IS RESTORED TO BE EQUAL OR BETTER THAN WHEN ENCOUNTERED.

ALL ITEMS SUCH AS ROAD SIGNS, DRAINAGE ITEMS, DRIVEWAY CULVERTS, MAILBOXES, PAPER BOXES, GUARDRAIL, FENCE, ETC. SHALL BE REPLACED IMMEDIATELY UPON COMPLETION OF THE WORK IN THE AREA OF THE DISTURBED OR DAMAGED ITEM ON THE SAME DAY THAT THE ITEM WAS REMOVED. UNLESS OTHERWISE ITEMIZED IN THE CONSTRUCTION DRAWINGS, THE REMOVAL AND REPLACEMENT OF ALL ITEMS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATERLINE, ITS APPURTENANCES, AND/OR OTHER INCIDENTAL ITEMS SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID IN THE PROPOSAL.

ALL ROAD SIGNS DISTURBED SHALL BE REPLACED TO THEIR ORIGINAL LOCATION. THE CONTRACTOR SHALL REFER TO THE PERTINENT ODOT STANDARD CONSTRUCTION DRAWINGS FOR THE PLACEMENT OF ROAD SIGNS RELATIVE TO THE EXISTING EDGE OF PAVEMENT.

SAFETY OF ADJACENT STRUCTURES:

THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ENSURE THE SAFETY OF EXISTING STRUCTURES AND SHALL NOT CAUSE EXCESSIVE VIBRATIONS. IF ANY DAMAGE IS DONE DUE TO HIS OPERATION THE CONTRACTOR IS SOLELY AND FULLY RESPONSIBLE FOR DAMAGES AND SHALL REPLACE OR REPAIR SUCH DAMAGES AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

SLAG BEDDING PROHIBITED:

GRANULATED SLAG OR AIR COOLED BLAST FURNACE SLAG SHALL NOT BE PERMITTED FOR USE AS GRANULAR MATERIAL. PIPE SHALL BE BEDDED WITH A COMPACTED, WASHED #57 RIVER GRAVEL.

SHEETING, SHORING AND DEWATERING:

ALL NECESSARY SHEETING, SHORING AND DEWATERING FOR CONSTRUCTION OF THE PROPOSED WATERLINE SHALL BE IN ACCORDANCE WITH O.S.H.A. AND/OR ODOT SPECIFICATIONS. ALL MATERIAL, EQUIPMENT, LABOR AND INCIDENTALS NECESSARY FOR THE AFOREMENTIONED WORK SHALL BE INCLUDED IN THE UNIT OR LUMP SUM PRICES BID FOR THE VARIOUS ITEMS OF THE PROPOSAL.

TRENCH EXCAVATION FOR WATERLINES:

ALL SOIL, SHALE, AND ROCK TRENCH EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH ODOT SPECIFICATIONS, WITHIN THE LINES AND GRADES GIVEN, OR AS OTHERWISE REQUIRED. THE FURNISHING OF ALL EQUIPMENT, TOOLS, APPLIANCES, SUPERINTENDENCE AND LABOR NECESSARY TO COMPLETE THE TRENCH EXCAVATION WORK AS SHOWN OR SPECIFIED, REGARDLESS OF THE SUBSURFACE STRATA MATERIAL, SHALL BE INCLUDED IN THE UNIT OR LUMP SUM PRICES BID FOR THE VARIOUS ITEMS OF THE PROPOSAL. NO EXTRA PAYMENT WILL BE MADE FOR SHALE OR ROCK EXCAVATION.

A SOILS REPORT FOR THE PROJECT HAS NOT BEEN PERFORMED AND IS NOT INCLUDED WITH THE BID DOCUMENTS. THE CONTRACTOR SHALL SATISFY HIMSELF BY TAKING HIS OWN SOIL BORINGS OR DIGGING TEST PITS TO DETERMINE THE NATURE OF THE SUBSURFACE STRATA, THE PRESENCE OF ANY ROCK AND ANY DIFFICULTIES TO BE ENCOUNTERED. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE UNIT OR LUMP SUM PRICES BID FOR THE VARIOUS ITEMS OF THE PROPOSAL.

SEE "SOIL CONDITIONS" NOTE ON SHEET 3 FOR ADDITIONAL INFORMATION.

TRENCH OPENING FOR WATERLINES:

THE LENGTH OF TRENCH OPENED, OR THE AREA OF THE SURFACE DISTURBED AT ANY ONE TIME SHALL BE LIMITED. ADDITIONAL TRENCHES SHALL NOT BE OPENED WHEN OPEN TRENCHES NEED TO BE BACKFILLED OR WHEN LABOR IS NEEDED TO RESTORE THE SURFACE OF STREETS TO A SAFE AND PROPER CONDITION.

IN NO CASE SHALL MORE THAN FIFTY (50) FEET OF TRENCH BE OPENED IN ADVANCE OF THE COMPLETED WORK. THE CONTRACTOR SHALL NOT STORE EXCAVATED MATERIALS ALONG THE LINE OF WORK.

IF FOR ANY REASON, ATTRIBUTABLE TO THE CONTRACTOR, WORK IS STOPPED ON THE WHOLE OR ANY PART OF THE EXCAVATION, AND THE SAME IS LEFT OPEN FOR AN UNREASONABLE LENGTH OF TIME IN ADVANCE OF CONSTRUCTION OF THE WATER LINE, OR OTHER ITEMS AS DETERMINED BY THE OWNER, THE CONTRACTOR SHALL REFILL SUCH EXCAVATION, OR ANY PART THEREOF AS DIRECTED, UNTIL HE IS READY TO PROCEED WITH THE CONSTRUCTION OF THE WORK, AT NO ADDITIONAL COST TO THE OWNER.

THE CONTRACTOR SHALL MAINTAIN ALL TRENCHES AFTER PIPELINE INSTALLATION AND PRIOR TO ANY NECESSARY PAVING TO THE SATISFACTION OF THE BUCKEYE WATER DISTRICT. MAINTENANCE SHALL INCLUDE DAILY INSPECTION AND INSTALLATION OF TRENCH AGGREGATE AND/OR PLACEMENT OF STEEL PLATES AS NECESSARY. THE CONTRACTOR SHALL INCLUDE THE COST TO PERFORM THIS SERVICE IN THE BASE BID. IF POOR TRENCH CONDITION IS REPORTED TO THE BWD, THEY SHALL NOTIFY THE CONTRACTOR AND THE CONTRACTOR SHALL HAVE 24 HOURS TO RESPOND AND CORRECT THE SITUATION. IF THE CONTRACTOR HAS NOT RESPONDED AFTER 24 HOURS AND THE BWD IS REQUIRED TO SERVICE THE TRENCH, THE CONTRACTOR WILL BE INVOICED TO COVER TIME AND MATERIALS EXPENDED BY THE BWD.

THE CONTRACTOR SHALL NOT LEAVE ANY PORTION OF A TRENCH OR PIT OPEN OVER NIGHT. THE CONTRACTOR IS REQUIRED TO MAKE EVERY EFFORT TO BACKFILL A TRENCH OR PIT AT THE END OF EACH WORKDAY. WHEN CIRCUMSTANCES EXIST THAT WILL NOT PERMIT THIS TO HAPPEN (WEATHER, ETC.) THEN THE CONTRACTOR AT BWD'S DIRECTION SHALL PLATE OR PROTECT THE EXCAVATION WITH CONCRETE BARRIER. IN NO CASE SHALL EQUIPMENT BE USED TO PROTECT THE EXCAVATION. ALL EQUIPMENT, VEHICLES AND MATERIALS ARE TO BE PARKED OR STORED IN A LOCATION OFF OF THE EXISTING ROAD RIGHT-OF-WAY(S) AND SUBJECT TO APPROVAL BY THE BWD.

ALL EXCAVATED MATERIAL SHALL BE STORED IN A MANNER THAT WILL NOT ENDANGER THE WORK NOR OBSTRUCT WALKS & DRIVEWAYS, ACTIVE HYDRANTS, VALVE PITS, VALVE BOXES, MANHOLE COVERS, INLETS, OR FIRE AND POLICE CALL BOXES. ALL UTILITIES SHALL BE UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES. GUTTERS AND DRAINAGE DITCHES SHALL BE KEPT CLEAR SUCH THAT STREET DRAINAGE AND NATURAL WATER COURSES WILL NOT BE OBSTRUCTED.

CONTINGENCY FOR ADDITIONAL WATER SERVICE CONNECTIONS:

QUANTITIES FOR WATER SERVICE TAPS ARE SHOWN ON SHEET 29 OF THE PLANS. THESE QUANTITIES ARE RELATIVE TO RESIDENCES LOCATED ALONG THE PROJECT LENGTH THAT HAVE PREVIOUSLY SIGNED USER AGREEMENTS WITH THE BUCKEYE WATER DISTRICT.

IN ADDITION TO THE AFOREMENTIONED WATER SERVICE QUANTITIES, THE FOLLOWING CONTINGENCY QUANTITIES ARE PROVIDED FOR ANY OTHER RESIDENCES REQUESTING A WATER SERVICE DURING CONSTRUCTION.

ITEM 638-WATER WORK MISC: SERVICE CONNECTION, 5 EACH
ADJACENT, AS PER PLAN

ITEM 638-WATER WORK MISC: SERVICE CONNECTION, 8 EACH
OPPOSITE, AS PER PLAN

THE CONTINGENCY QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

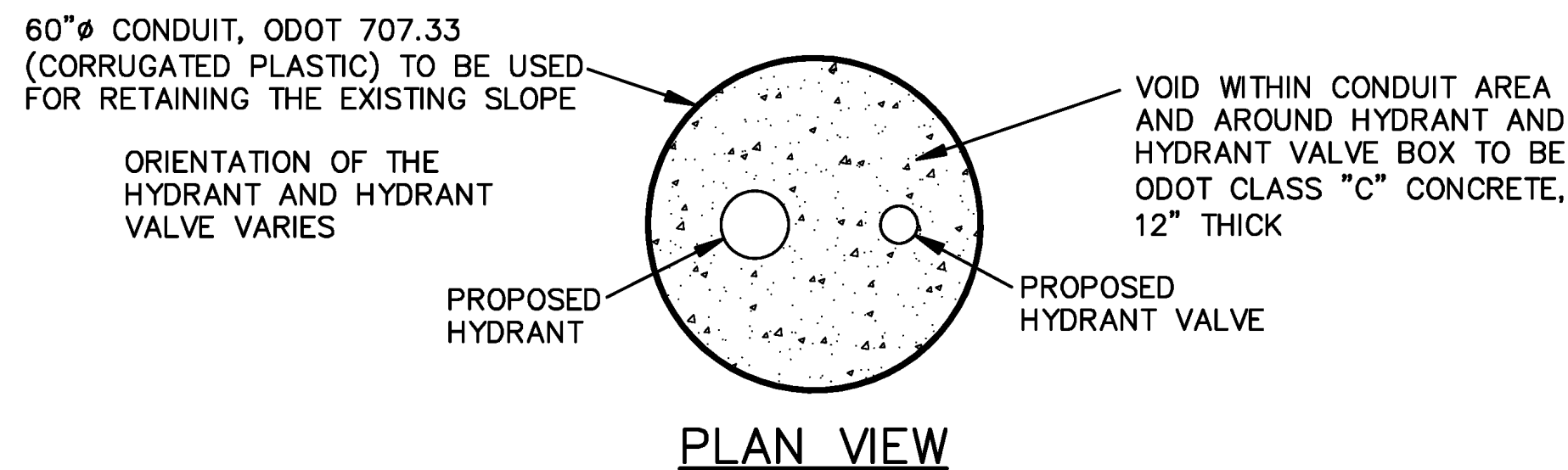
AS STATED IN THE WATER SERVICE CONNECTION DETAILS ON SHEET 29, THE CONTRACTOR SHALL PROVIDE ALL OF THE NECESSARY EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS FOR A COMPLETE INSTALLATION OF A PROPOSED WATER SERVICE CONNECTION. WATER SERVICE CONNECTIONS SHALL BE PAID FOR UNDER THE PER EACH UNIT PRICE BID FOR ITEM 638-WATER WORK MISC: SERVICE CONNECTION, ADJACENT, AS PER PLAN AND ITEM 638-WATER WORK MISC: SERVICE CONNECTION, OPPOSITE, AS PER PLAN.

WATERLINE NOTES AND DETAILS

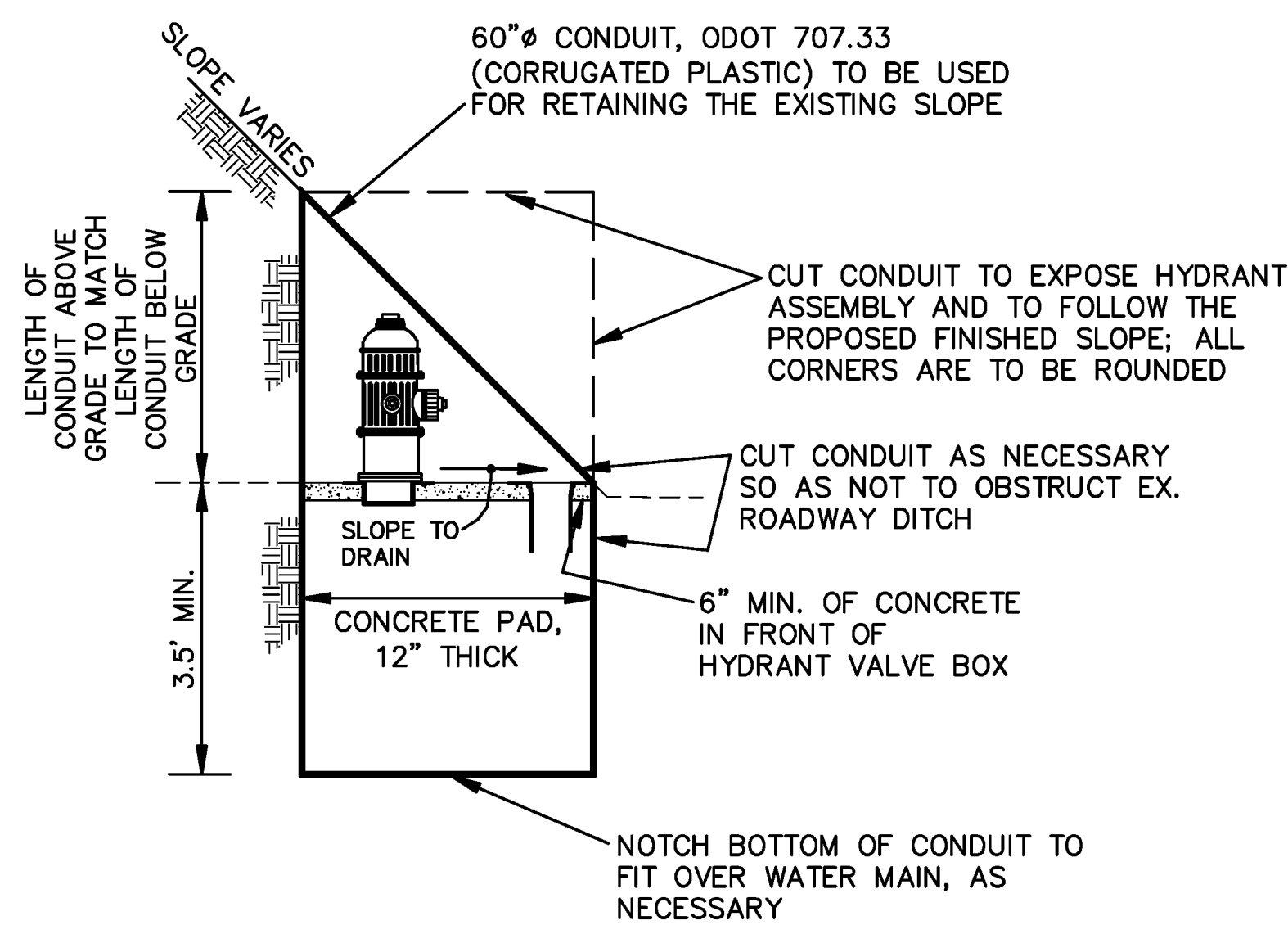
OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION

CALC. BY: J.F.B.
DATE: 2/21
CHKD. BY: D.G.D.
DATE: 2/21

FOR ALL HYDRANTS, THE CONTRACTOR SHALL PROVIDE ANY NECESSARY SLOPE SUPPORT AS DIRECTED BY THE ENGINEER OR BUCKEYE WATER DISTRICT



PLAN VIEW



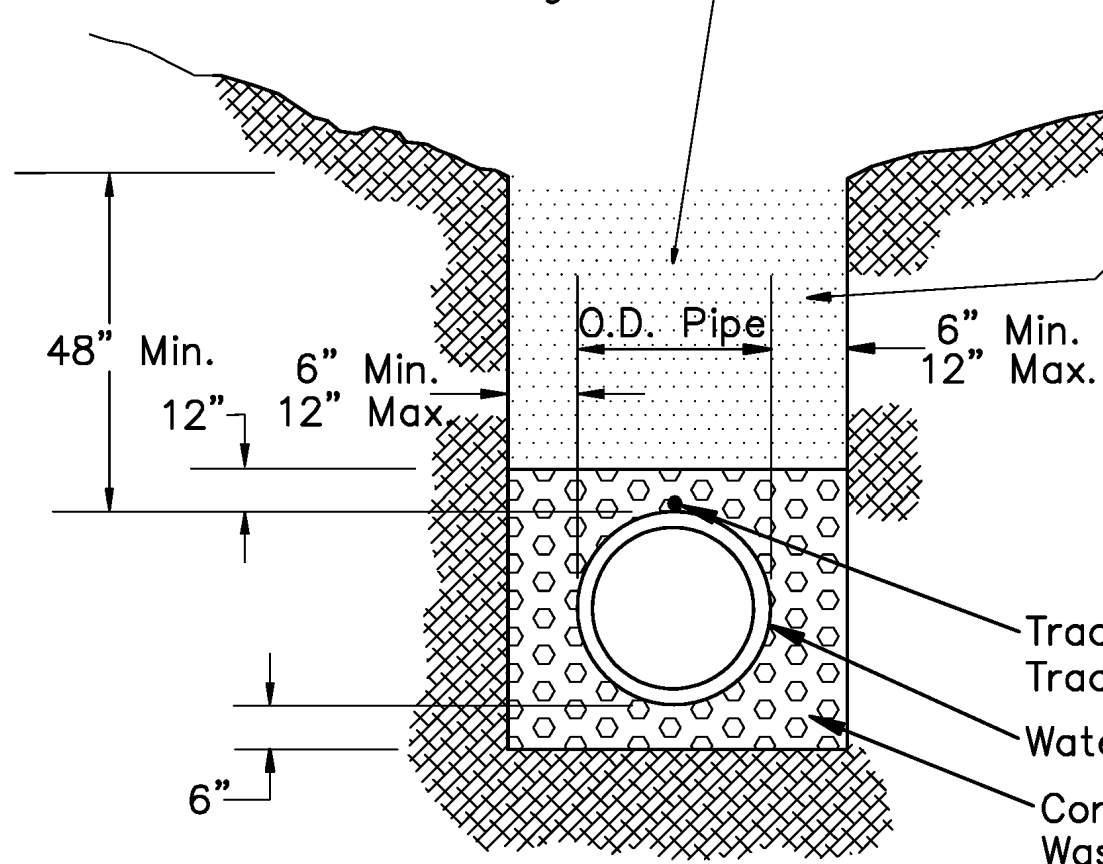
SECTION VIEW

HYDRANT SLOPE SUPPORT DETAILS

INSTALLATION OF THE PROPOSED HYDRANT ASSEMBLY AND THE CONDUIT FOR THE RETAINING OF THE EXISTING SLOPE AROUND THE HYDRANT ASSEMBLY SHALL BE COORDINATED WITH THE FINAL SLOPE GRADING

Excavation, bedding, backfill, and other incidentals necessary for the installation of the proposed waterline and its appurtenances shall be included in the various unit prices bid for Item 638.

Buried nonmetallic marker tape over C/L of pipe, 24" down from finished grade



TYPICAL TRENCH DETAIL

The pipe shall be 48" min below the edge of adjacent pavement, the existing ditch flow line, or the surface of the ground, whichever is lower.

All trenches under existing drives, roadways, or within 2 ft. of paved areas shall be backfilled and compacted with ODOT Item 304: Aggregate Base, As Per Plan and as per O.D.O.T. Item 611, Type "B" Conduit (See Item 611 and Item 638 Special Note on Sheets 4 and 27).

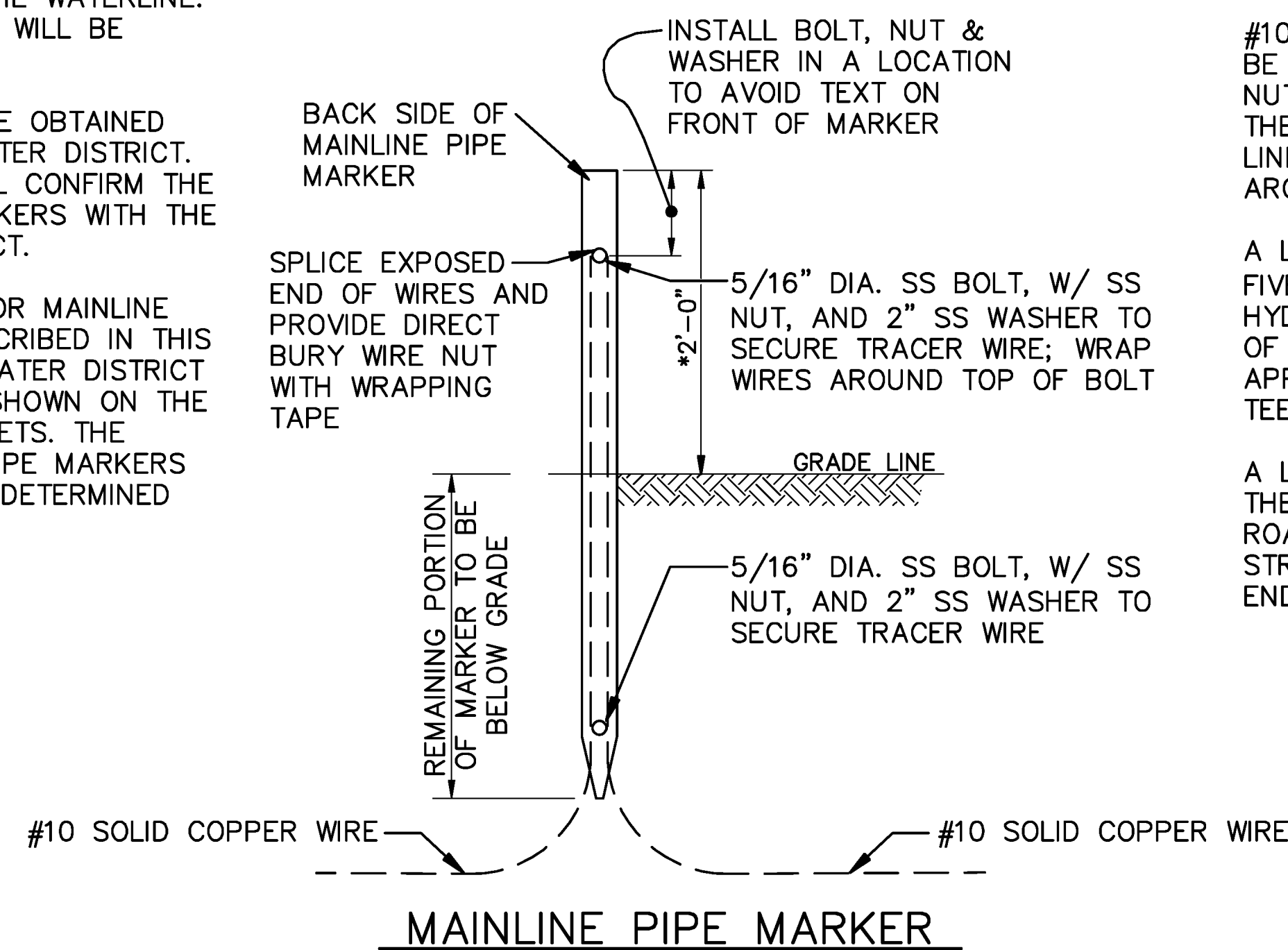
All trenches not under or within 2' of roadway or drive pavement may be backfilled and compacted with acceptable excavated material approved by the Engineer as per ODOT Item 611, Type "C" Conduit (See Item 611 and Item 638 Special Note on Sheets 4 and 27).

ALL EQUIPMENT, MATERIALS, LABOR, AND INCIDENTALS NECESSARY FOR THE COMPLETE INSTALLATION OF THE PROPOSED MAINLINE PIPE MARKERS SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR THE WATERLINE. NO SEPARATE PAYMENT WILL BE MADE.

LINE MARKERS SHALL BE OBTAINED FROM THE BUCKEYE WATER DISTRICT. THE CONTRACTOR SHALL CONFIRM THE COST OF THE LINE MARKERS WITH THE BUCKEYE WATER DISTRICT.

REQUIRED LOCATIONS FOR MAINLINE PIPE MARKERS, AS DESCRIBED IN THIS DETAIL PER BUCKEYE WATER DISTRICT STANDARDS, ARE NOT SHOWN ON THE PLAN AND PROFILE SHEETS. THE NUMBER OF MAINLINE PIPE MARKERS TO BE USED SHALL BE DETERMINED BY THE CONTRACTOR.

* THE TOP OF LINE MARKER SHALL BE 2'-0" ABOVE THE GROUND SURFACE IN ALL RESIDENTIAL SUBDIVISIONS.

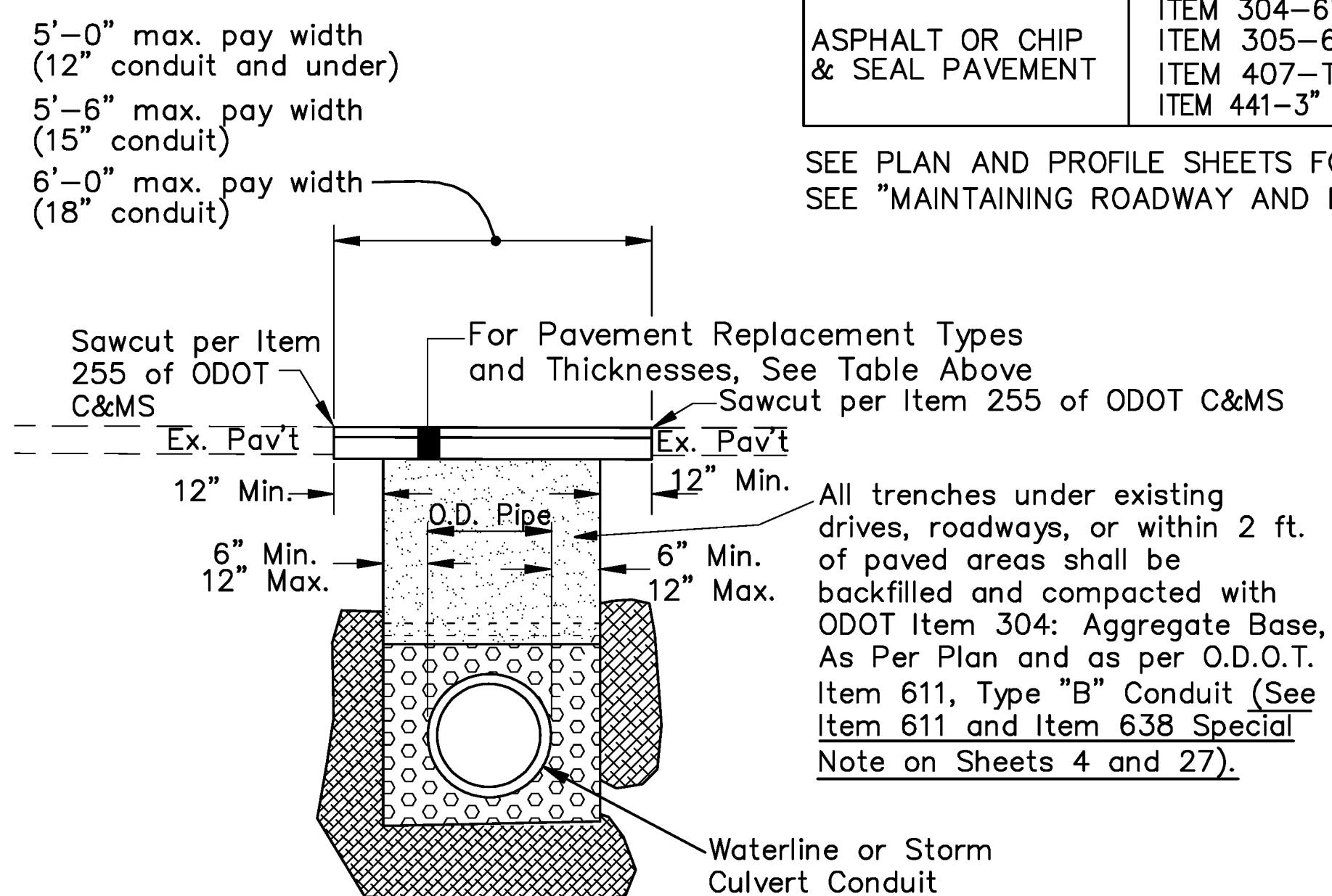


MAINLINE PIPE MARKER

ITEM 304: AGGREGATE BASE, AS PER PLAN (SEE NOTE ON SHEET 4) FOR DRIVEWAY AND ROADWAY PAVEMENT REPLACEMENT SHALL BE A CONTINUATION OF THE TRENCH BACKFILL AND WILL NOT BE PAID FOR SEPARATELY. ALL COSTS FOR ITEM 304: AGGREGATE BASE, AS PER PLAN SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PROPOSED "TYPE B" WATERLINE.

EX. PAVEMENT TYPE	PAVEMENT REPLACEMENT
SLAG DRIVE	ITEM 304-8" AGGREGATE BASE, A.P.P. (CONTINUATION OF BACKFILL)
ASPHALT DRIVE	ITEM 304-8" AGGREGATE BASE, A.P.P. (CONTINUATION OF BACKFILL) ITEM 407-TACK COAT ITEM 441-3" ASPH. CONC. SURF. COURSE, (PG64-22), TYPE 1, A.P.P., (448)
CONCRETE DRIVE	ITEM 304-4" AGGREGATE BASE, A.P.P. (CONTINUATION OF BACKFILL) ITEM 452-6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS
ASPHALT OR CHIP & SEAL PAVEMENT	ITEM 304-6" AGGREGATE BASE, A.P.P. (CONTINUATION OF BACKFILL) ITEM 305-6" CONCRETE BASE, CLASS QC MS, AS PER PLAN ITEM 407-TACK COAT ITEM 441-3" ASPH. CONC. SURF. COURSE, (PG64-22), TYPE 1, A.P.P., (448)

SEE PLAN AND PROFILE SHEETS FOR PAVEMENT REPLACEMENT LOCATIONS AND SEE "MAINTAINING ROADWAY AND DRIVEWAY PAVEMENT SURFACES" NOTE ON SHEET 6.



PAVEMENT REPLACEMENT DETAIL
WATERLINE AND STORM CULVERT CONDUIT

NOTES:
ALL TRACER WIRE SPLICES SHALL BE CONNECTED WITH A DIRECT BURY WIRE NUT AND WRAPPED WITH 3M SCOTCH SUPER #33+ TAPE.

#10 SOLID COPPER TRACER WIRE TO BE ATTACHED TO THE SS BOLTS, NUTS, & WASHERS TO SECURE IT TO THE MARKER, AND OUT TO THE MAIN LINE TRACER WIRE; WRAP WIRES AROUND THE TOP OF UPPER BOLT.

A LINE MARKER SHALL BE PLACED FIVE (5) FEET FROM THE FIRE HYDRANT TEE, OVER THE CENTER LINE OF THE WATER MAIN, ON THE APPROACHING TRAFFIC SIDE OF THE TEE.

A LINE MARKER SHALL BE PLACED ON THE CENTER LINE OF ALL FITTINGS, ROAD CROSSINGS, BOTH SIDES OF STREAM CROSSINGS, AND AT THE ENDS OF ALL LINES.

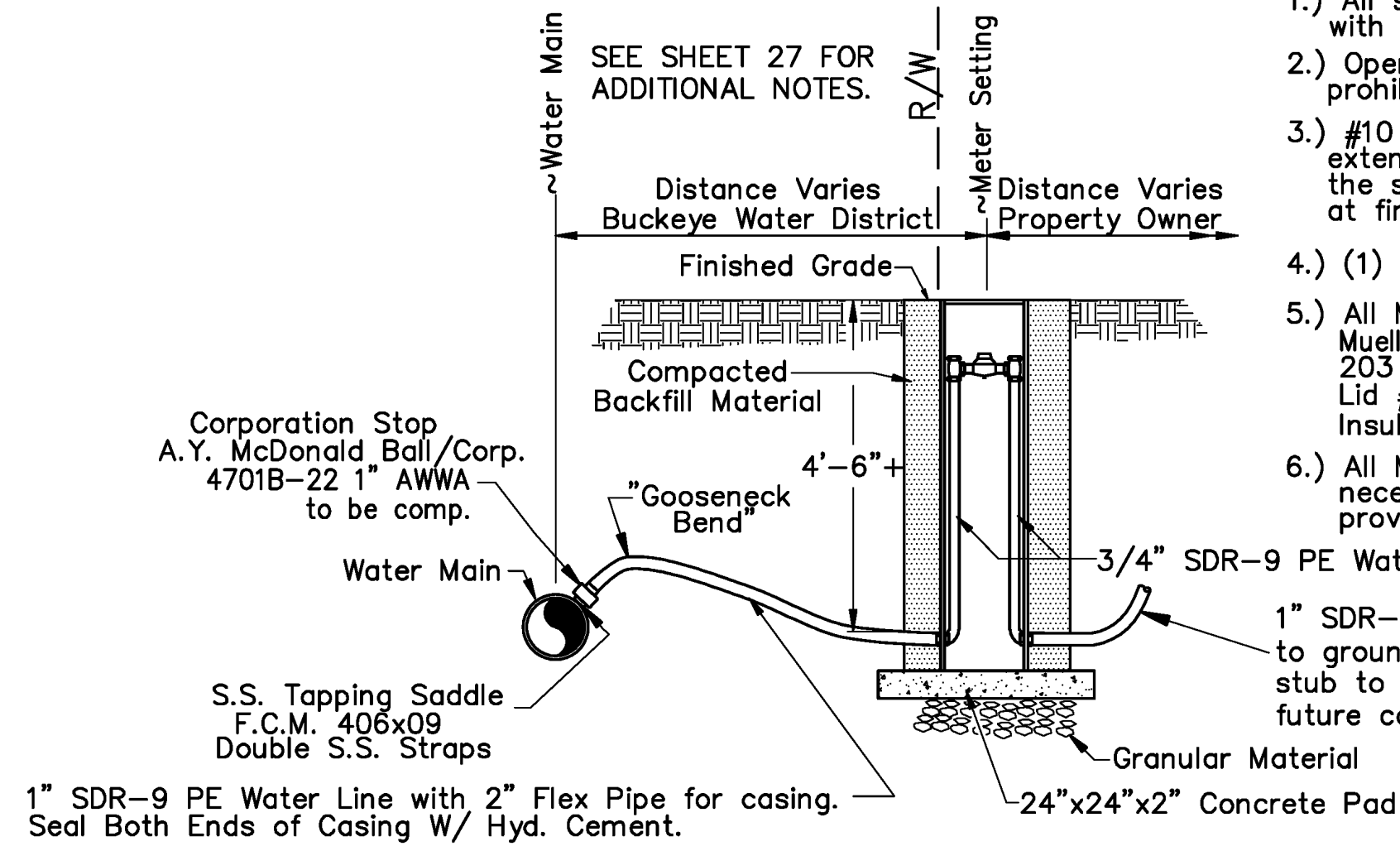
THE CONTRACTOR SHALL COORDINATE WITH THE BUCKEYE WATER DISTRICT FOR THE FINAL LOCATIONS OF ALL PROPOSED WATER SERVICES.

ALL WATER SERVICE CONDUIT SHALL BE EITHER BORED OR PUSHED UNDER THE EXISTING DRIVEWAY AND/OR ROADWAY PAVEMENT FROM THE PROPOSED WATER MAIN TO THE PROPOSED SERVICE METER PIT LOCATION; OPEN CUTTING OF THE EXISTING DRIVEWAY AND/OR ROADWAY PAVEMENT FOR THE INSTALLATION OF THE WATER SERVICE CONDUIT IS NOT PERMITTED.

THE CONTRACTOR SHALL PROVIDE ALL OF THE NECESSARY EQUIPMENT, LABOR, MATERIALS, AND INCIDENTALS FOR A COMPLETE INSTALLATION OF A PROPOSED WATER SERVICE CONNECTION.

EXCAVATION, BEDDING, BACKFILL, AND OTHER INCIDENTALS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES SHALL BE INCLUDED IN THE VARIOUS UNIT PRICES BID FOR ITEM 638.

WATER SERVICE CONNECTIONS SHALL BE PAID FOR UNDER THE PER EACH UNIT PRICE BID FOR ITEM 638—WATER WORK MISC: SERVICE CONNECTION, ADJACENT, AS PER PLAN AND ITEM 638—WATER WORK MISC: SERVICE CONNECTION, OPPOSITE, AS PER PLAN. APPROXIMATE LENGTHS OF PROPOSED WATER SERVICE CONDUITS ARE SHOWN IN THE TABLES ON THIS SHEET AND ARE FOR REFERENCE ONLY.



SERVICE CONNECTION DETAIL

NOTES:

- 1.) All services shall be installed in accordance with AWWA C-800 and BWD standards.
- 2.) Open cuts across roadways for services are prohibited. They shall be bored or pushed.
- 3.) #10 Solid copper tracer wire shall extend from the water main, along the service line, and up to the lid at finish grade inside all meter boxes.
- 4.) (1) Meter per Tap; provided by BWD
- 5.) All Meter Boxes shall be Mueller/McCullough Thermal Coil. 203 CS-15-48-F-S-B-S Lid #780-112 with (1) 1 3/4" hole Insulation Pad 4" #790022
- 6.) All Meter Settings shall include all necessary incidentals; meter to be provided by BWD

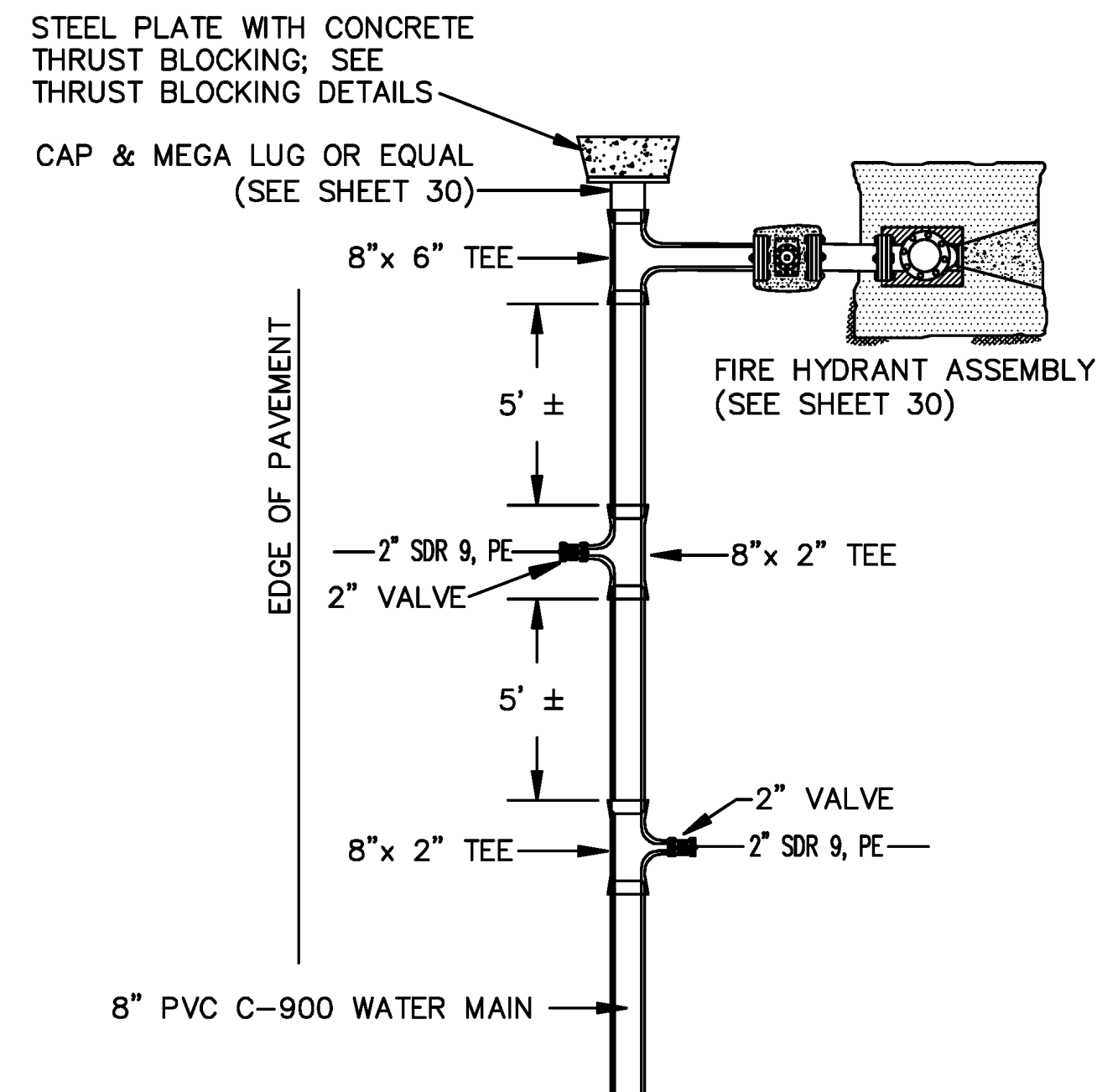
1" SDR-9 PE Waterline to be extended to ground surface, capped and/or plugged; stub to be removed by homeowner for future connection to water service

COUNTRY ESTATES

WATER SERVICES ESTIMATED QUANTITIES

STATION	SIDE OF PROPOSED WATERLINE	638		
		WATER WORK MISC.: SERVICE CONNECTION, ADJACENT, AS PER PLAN EACH	WATER WORK MISC.: SERVICE CONNECTION, OPPOSITE, AS PER PLAN EACH	APPROXIMATE LENGTH OF SERVICE CONDUIT FOOT
(**)402+15	RT.		1	53
(**)407+65	RT.		1	53
(**)411+00	LT.	1		19
(**)411+60	RT.		1	53
(**)412+40	LT.	1		19
(**)413+75	LT.	1		19
(**)415+60	RT.		1	53
(**)417+60	RT.		1	53
(**)418+00	LT.	1		19
(**)419+55	LT.	1		20
TOTALS		5	5	

(**)DENOTES METER SETTING TO BE INSTALLED 3' OUTSIDE OF EX. R/W AND 3' INSIDE EX. UTILITY EASEMENT



2" WATER MAIN CONNECTION DETAIL (CUL-DE-SAC)

- WOODLAND DRIVE CUL-DE-SAC
- LANTZ COURT CUL-DE-SAC
- IVAN COURT CUL-DE-SAC
- INDY COURT CUL-DE-SAC
- PARKVIEW DRIVE CUL-DE-SAC

FREDERICK HEIGHTS

WATER SERVICES ESTIMATED QUANTITIES

STATION	SIDE OF PROPOSED WATERLINE	638		
		WATER WORK MISC.: SERVICE CONNECTION, ADJACENT, AS PER PLAN EACH	WATER WORK MISC.: SERVICE CONNECTION, OPPOSITE, AS PER PLAN EACH	APPROXIMATE LENGTH OF SERVICE CONDUIT FOOT
501+95	LT.	1		15
502+00	RT.		1	51
503+90	RT.		1	51
504+15	LT.	1		14
505+80	RT.		1	48
506+30	LT.	1		15
507+15	RT.		1	50
508+60	RT.		1	48
508+75	LT.	1		16
513+20	LT.	1		16
513+25	RT.		1	48
515+25	LT.	1		15
516+30	RT.		1	45
518+15	LT.	1		17
519+30	RT.		1	48
521+55	RT.		1	66
522+05	RT.		1	49
522+45	LT.	1		18
523+45	RT.		1	48
524+15	LT.	1		13
524+25	RT.		1	52
525+55	LT.	1		14
526+00	RT.		1	50
527+00	RT.		1	52
527+50	LT.	1		14
527+70	RT.		1	50
528+90	RT.		1	49
529+65	LT.	1		15
530+10	RT.		1	50
531+40	RT.		1	49
532+60	RT.		1	49
602+10	LT.		1	51
602+35	RT.	1		17
603+20	LT.		1	48
603+65	RT.	1		15
604+55	LT.		1	51
604+85	RT.	1		15
605+60	LT.		1	55
606+55	LT.		1	50
608+10	LT.		1	50
609+10	RT.	1		16
609+45	LT.		1	50
610+75	LT.		1	50
611+75	RT.	1		15
612+10	LT.		1	50
TOTALS		17	28	

FREDERICK HEIGHTS

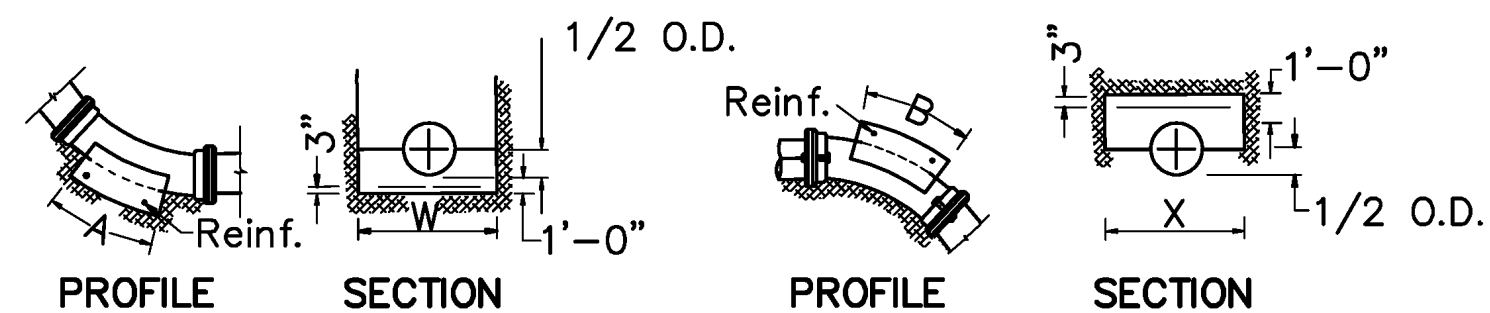
WATER SERVICES ESTIMATED QUANTITIES

STATION	SIDE OF PROPOSED WATERLINE	638		
		WATER WORK MISC.: SERVICE CONNECTION, ADJACENT, AS PER PLAN EACH	WATER WORK MISC.: SERVICE CONNECTION, OPPOSITE, AS PER PLAN EACH	APPROXIMATE LENGTH OF SERVICE CONDUIT FOOT
613+50	LT.		1	50
613+55	RT.	1		15
702+35	LT.	1		15
702+60	RT.		1	48
703+70	LT.	1		17
703+95	RT.		1	48
705+05	LT.	1		15
802+70	LT.	1		16
803+50	RT.		1	50
807+50	RT.		1	50
808+50	LT.	1		16
808+90	RT.		1	46
810+15	RT.		1	46
810+90	LT.	1		20
815+35	LT.	1		16
818+75	RT.		1	50
821+00	RT.		1	47
823+00	LT.		1	50
824+55	LT.		1	50
825+50	RT.	1		16
825+75	LT.		1	50
827+15	LT.		1	50
828+60	RT.	1		18
828+75	LT.		1	47
829+95	RT.	1		17
830+25	LT.	1		17
831+25	RT.	1		17
901+80	RT.	1		16
902+30	LT.		1	50
903+35	RT.	1		15
1001+90	LT.	1		17
1002+30	RT.	1		17
1002+75	LT.	1		17
1002+85	LT.	1		17
1101+15	LT.	1		20
1103+95	LT.	1		17
1104+00	RT.	1		17
1105+00	RT.	1		17
1200+90	LT.		1	51
1200+95	RT.	1		19
1202+25	LT.		1	48
1203+35	LT.	1		17
1203+85	RT.	1		17
1204+15	LT.	1		17
TOTALS		27	17	

CALC: J.F.B.
DATE: 2/21
CHKD: BY:D.G.D.
DATE: 2/21

WATERLINE DETAILS

OLD FREDERICKTOWN ROAD WATERLINE EXTENSION



REINFORCING FOR SAG AND CREST BENDS

Table with 3 columns: Bend angle, Rebar size and spacing, and Concrete cover (c/c).

NOTE: All Nuts & Bolts to be Stainless Steel

THRUST BLOCKING DETAILS FOR BENDS IN VERTICAL PLANE WORKING PRESSURE UP TO 305 PSI

TABLE OF MINIMUM DIMENSIONS

SAG BENDS

Table of minimum dimensions for sag bends with columns for Diameter and Bend angle (11 1/4, 22 1/2, 45 degrees).

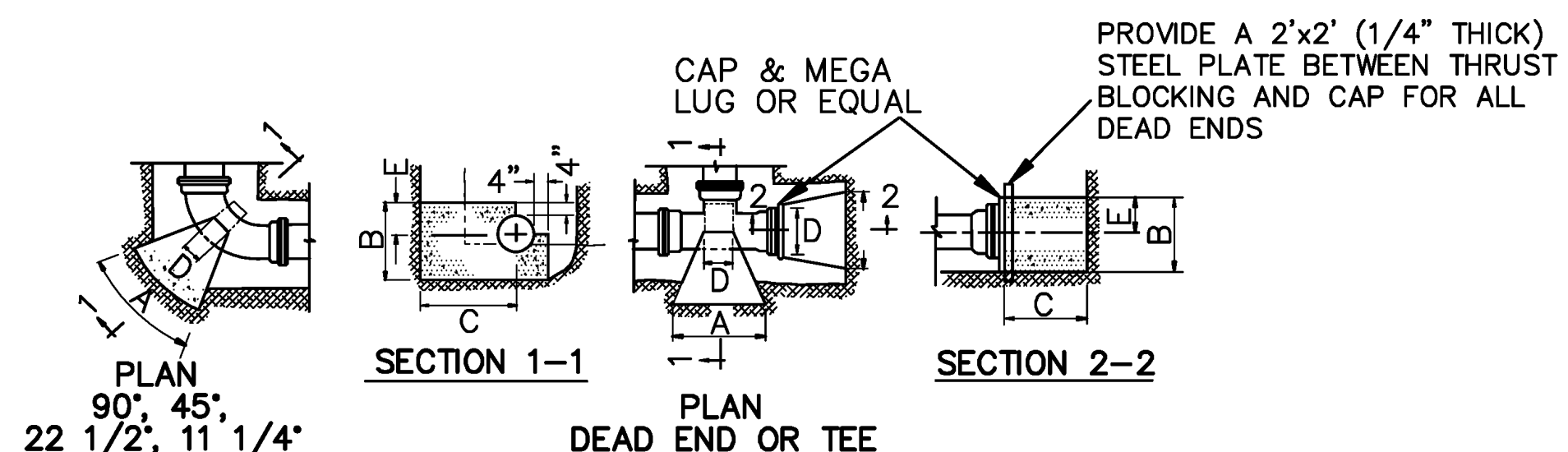
OVER BENDS

Table of minimum dimensions for over bends with columns for Diameter and Bend angle (11 1/4, 22 1/2, 45 degrees).

NOTE: Blocking designs based on working pressure 305 psi and 100 psi water hammer and soil bearing 3000 psf.

Concrete shall be plant mix, 4,000 psi at 28-day strength; All thrust blocks to be formed. Quantity shown is for each thrust block. ADDITIONAL BLOCKING AS DIRECTED BY ENGINEER

ALL FITTINGS SHALL BE RESTRAINED WITH MECHANICAL JOINT RESTRAINTS CONFORMING TO "MEGA-LUG" OR APPROVED EQUAL IN ADDITION TO THE CONCRETE THRUST BLOCKING.



Note: All concrete blocking must have its entire face (A+B) bearing against undisturbed soil.

NOTE: All Nuts & Bolts to be Stainless Steel

THRUST BLOCKING DETAILS FOR BENDS IN HORIZONTAL PLANES WORKING PRESSURE UP TO 305 PSI

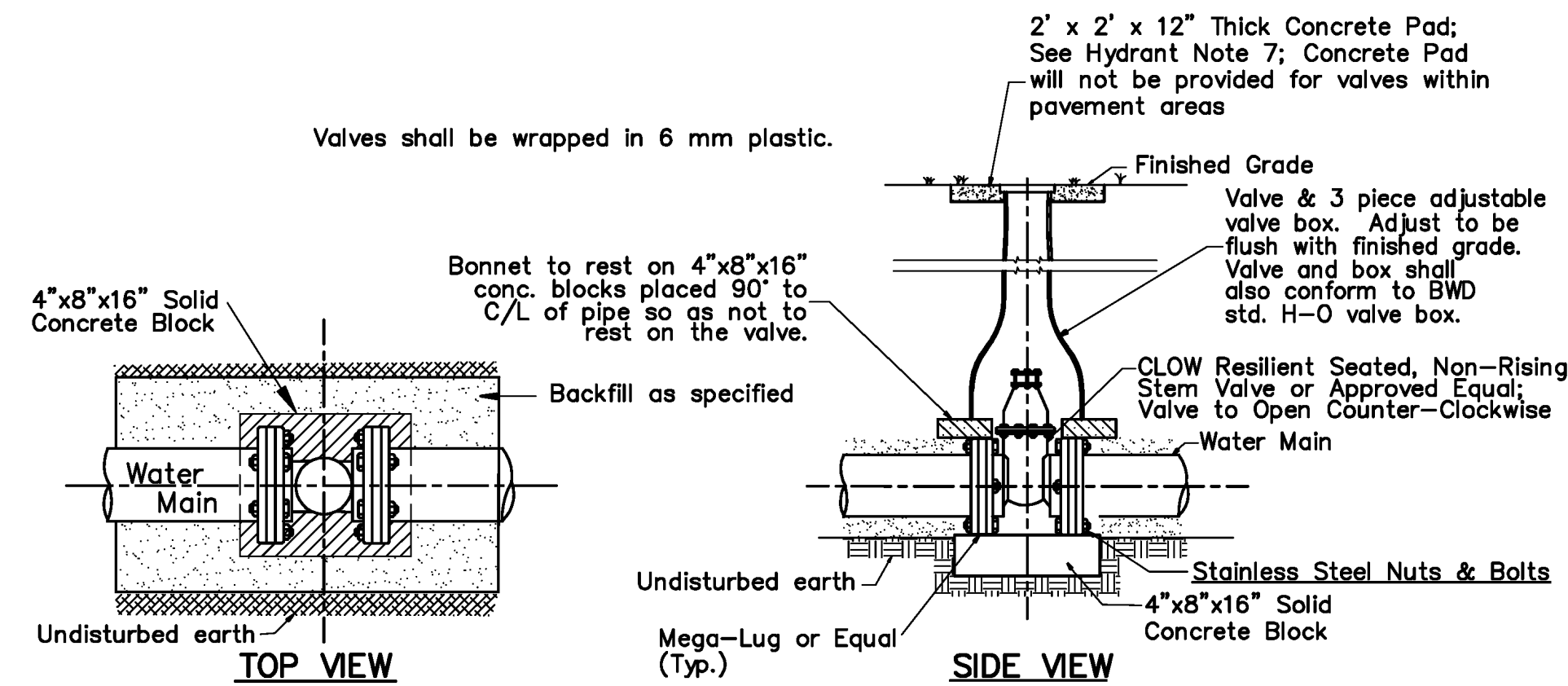
TABLE OF MINIMUM DIMENSIONS

Table of minimum dimensions for thrust blocking in horizontal planes, including columns for Tee-Dead End and various bend diameters.

DIMENSION C and DIMENSION D values for different diameters.

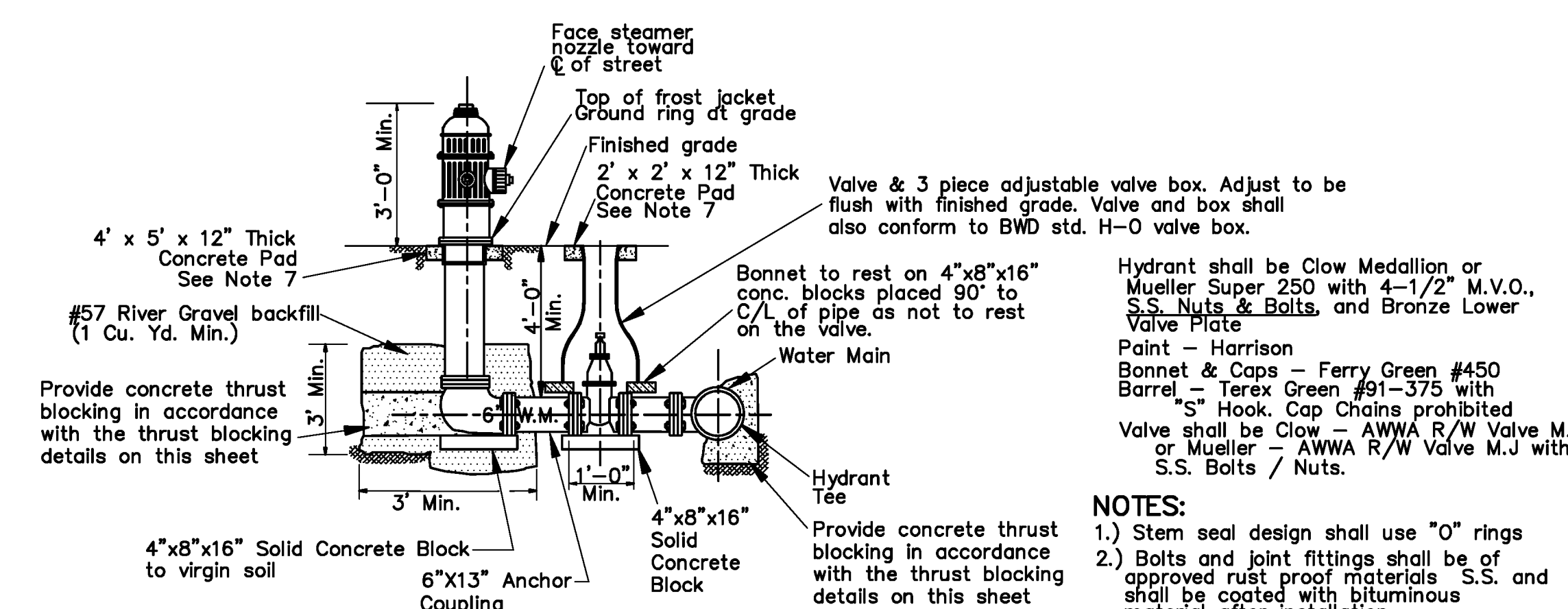
DIMENSION E values for different diameters.

NOTE: Blocking designs based on working pressure 305 psi and 100 psi water hammer and soil bearing 3000 psf.

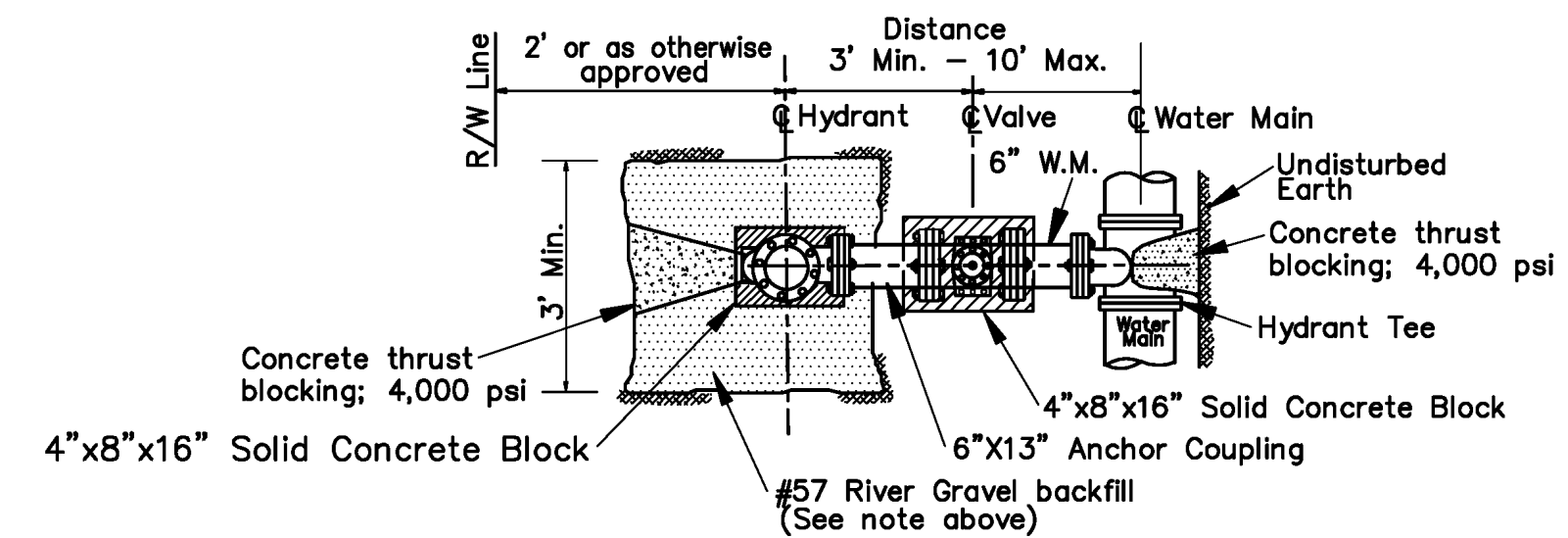


BURIED VALVE

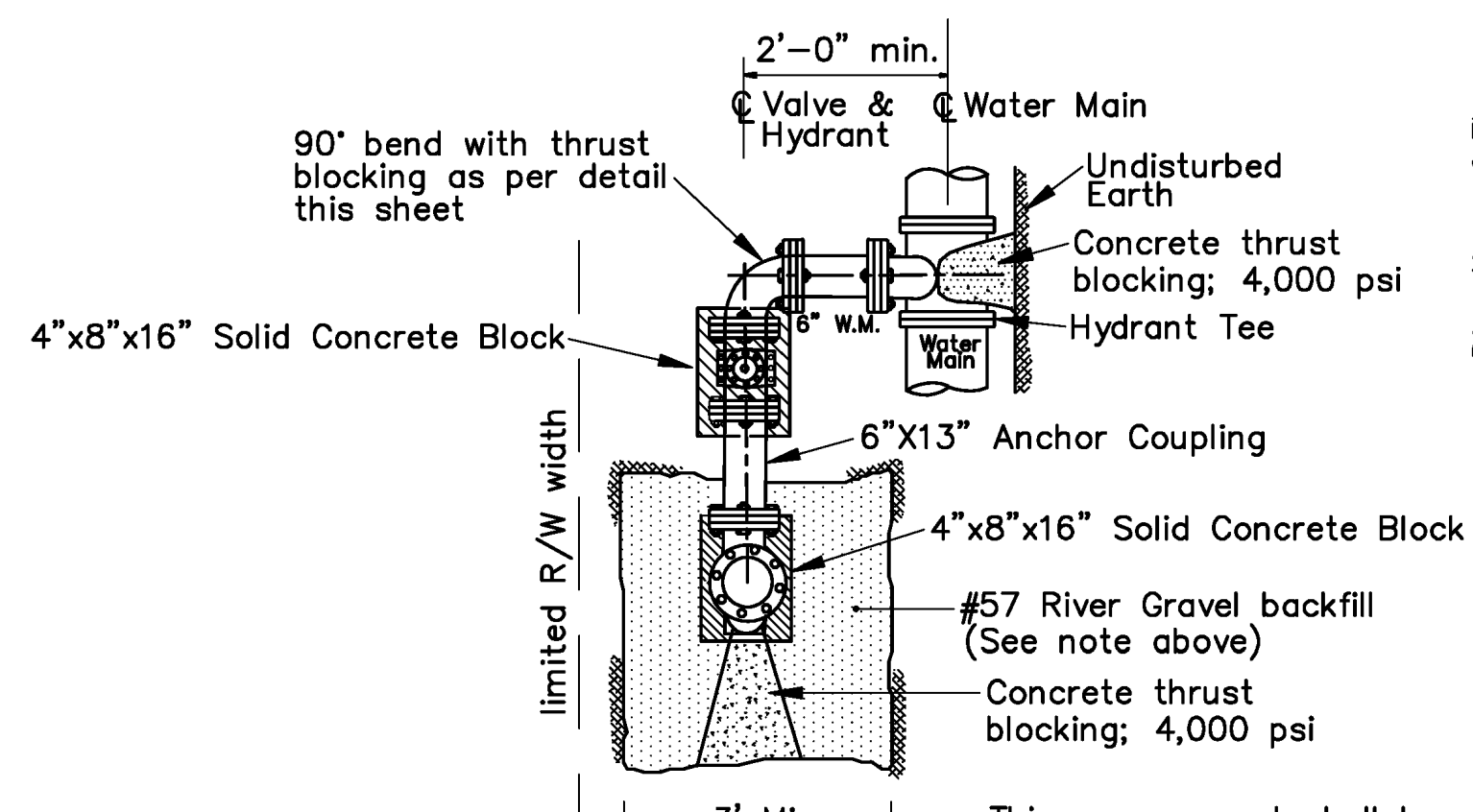
Gate Valves shall comply with ANSI/AWWA C509-94



NOTES: 1.) Stem seal design shall use "O" rings. 2.) Bolts and joint fittings shall be of approved rust proof materials.

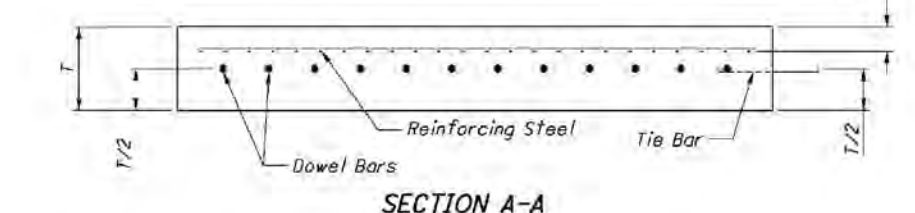
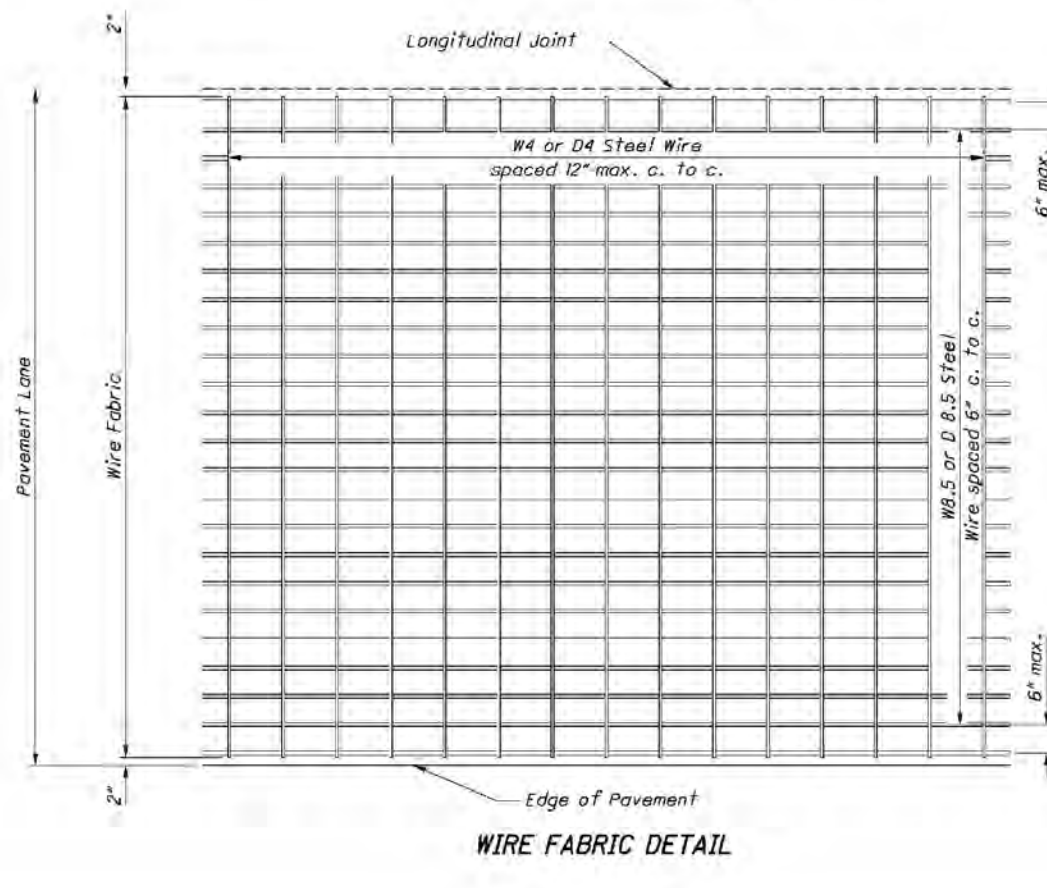
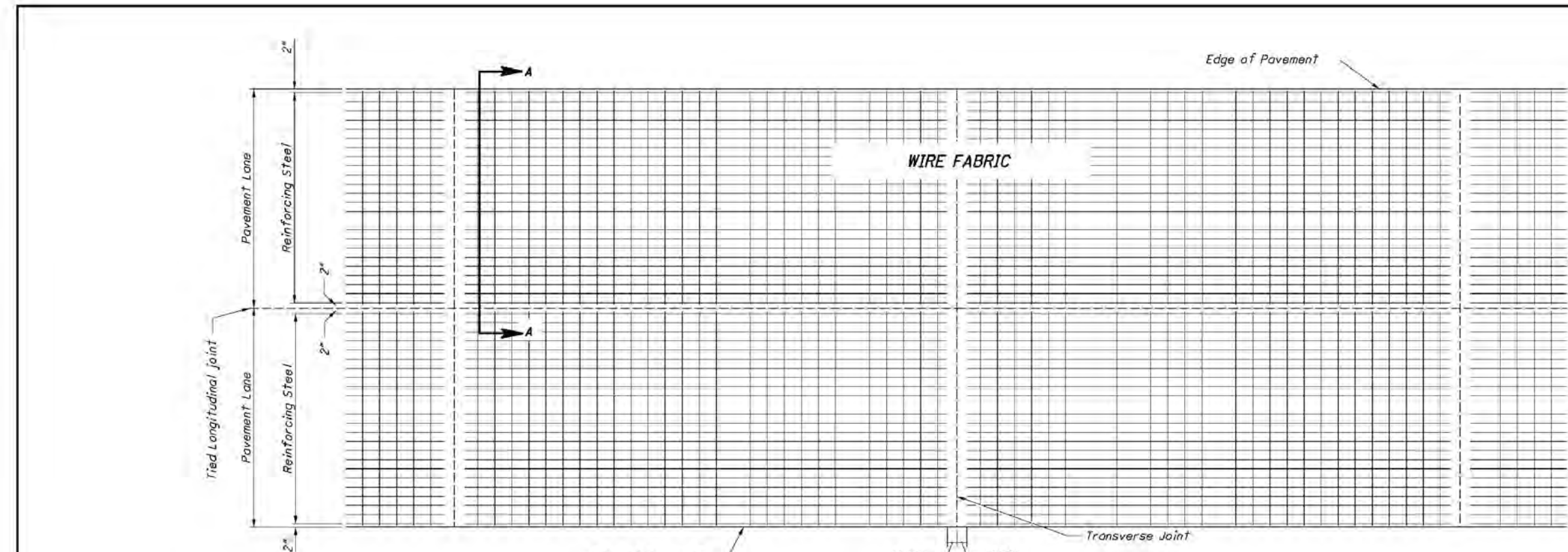


PERPENDICULAR TO WATER MAIN



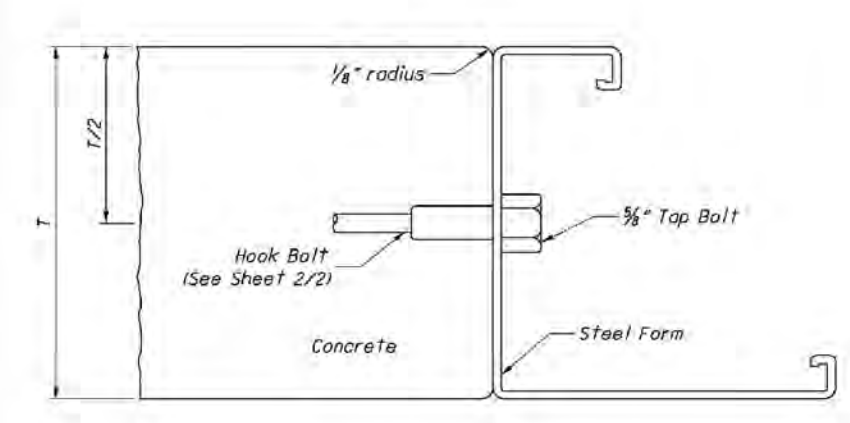
PARALLEL TO WATER MAIN

STANDARD HYDRANT ASSEMBLY DETAILS ALL OF THE MATERIALS LISTED ABOVE SHALL BE INCLUDED IN THE PER EACH AMOUNT BID FOR ITEM 638: 6" FIRE HYDRANT ASSEMBLY.

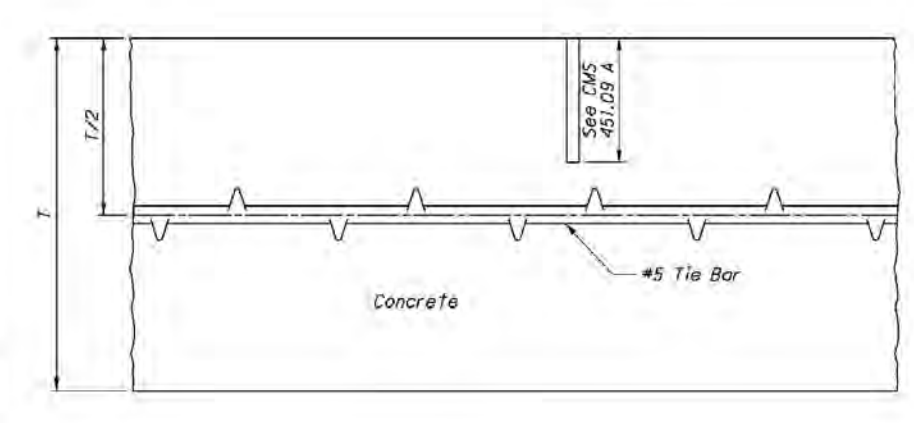


NOTES
STEEL REINFORCING: In normal or wider lane widths, reinforcing may consist of two units with an approved longitudinal hinge. The hinge shall consist of #4 or D4 steel wires connecting the two units such that the longitudinal members on either side of the hinge will be properly spaced when the reinforcing is in the final position. Reinforcing steel in final position shall not touch either the dowels or tie bars.

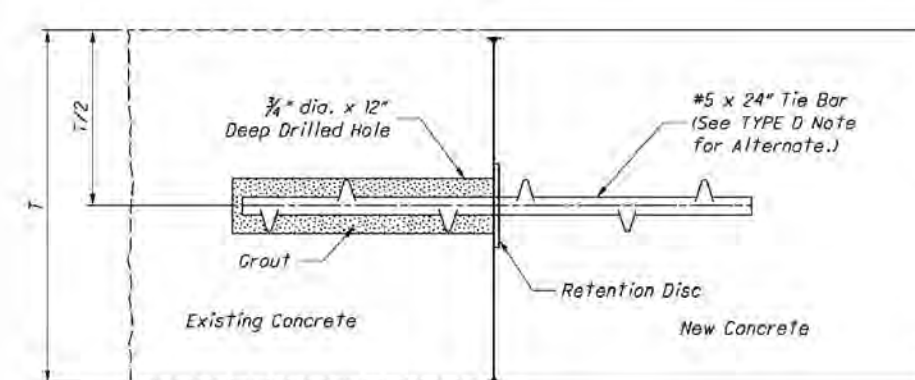
THIS DRAWING REPLACES BP-2.1 DATED 7-9-13.
 DATE OF THE DRAWING OR REVISION: 7-28-2000
 DESIGNED BY: M. Evans
 CHECKED BY: D. Miller
 OFFICE OF ENGINEERING: LARRY F. SUTHERLAND
 STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT NUMBER: 7-17-2015
 SHEET NUMBER: 1/1



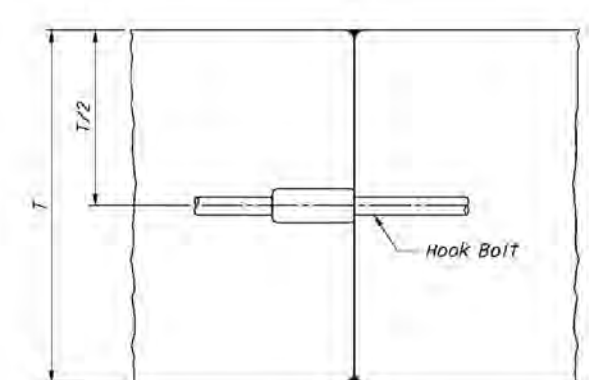
ACCEPTABLE METHOD OF FORMING JOINT



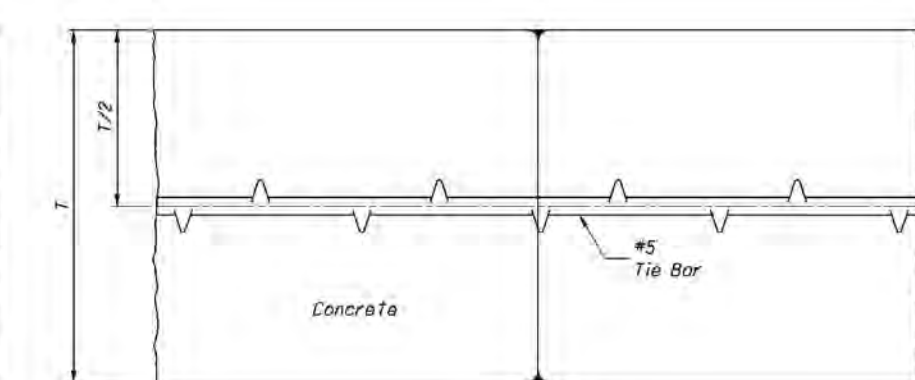
SAWED JOINT



TYPE D (DRILLED TIED LONGITUDINAL) JOINT



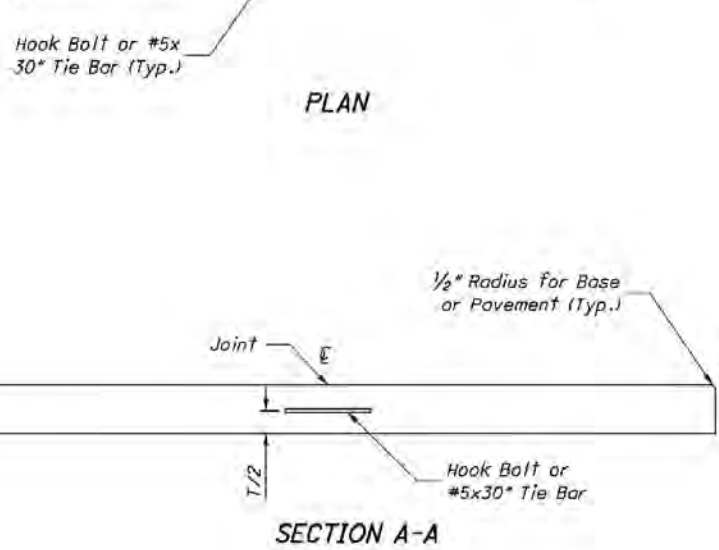
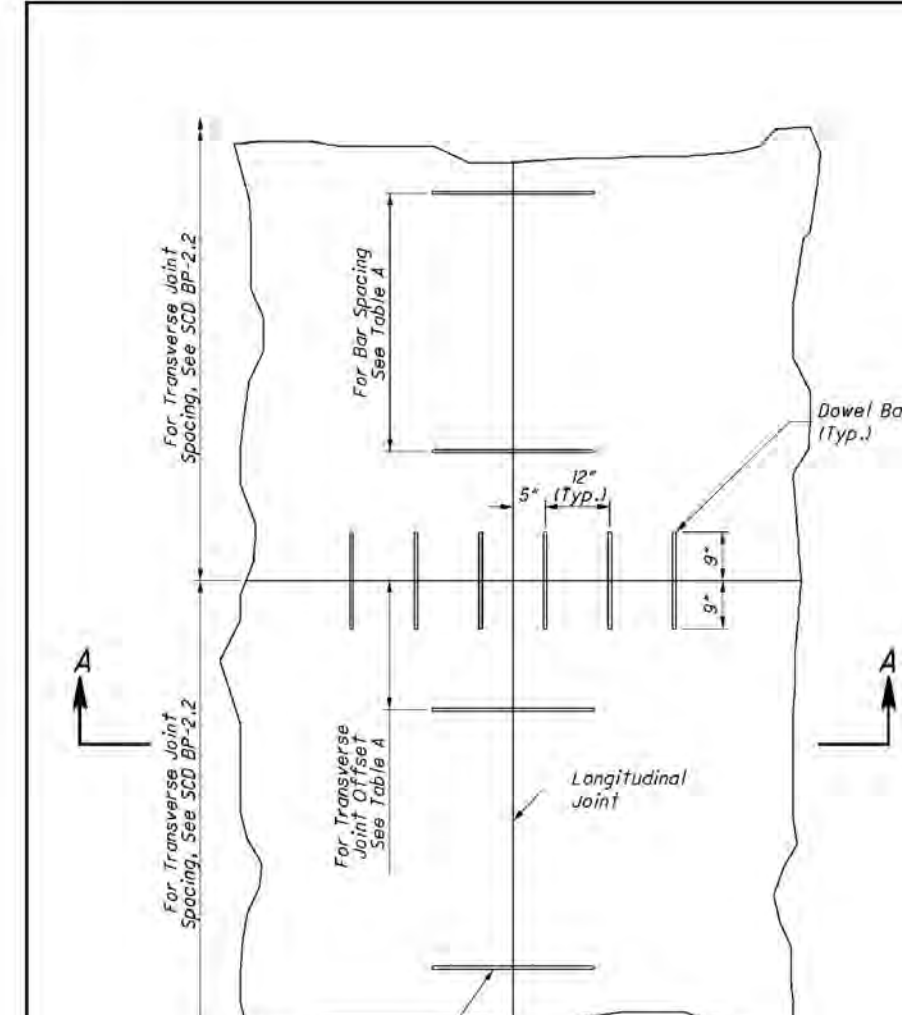
BUTT JOINT W/ HOOK BOLT



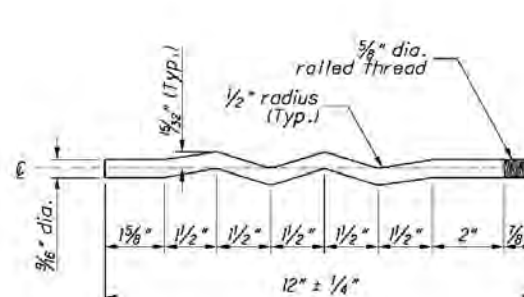
BUTT JOINT W/ TIE BAR

NOTES
GENERAL: Longitudinal joints shall be used when specified on the typical section and shall be constructed as shown on this drawing in Items 451 and 452 Pavement and Item 305 Base. The joint shall be on the centerline of the pavement unless otherwise shown on the plans. Where the pavement width exceeds 15', an additional longitudinal joint shall be introduced into the jointing details as directed by the Engineer. Tie bars shall be #5 deformed bars. A satisfactory device shall be used to hold the tie bars in proper positions or they may be installed by a mechanical installing device. Tie bars shall be centered on the longitudinal joint as nearly as practical.
BUTT JOINT: The longitudinal joint between adjoining slabs poured in separate operations shall be butt joint with hook bolts or tie bars, unless otherwise shown on the plans. Bent tie bars shall not be permitted.
TYPE D DRILLED TIED LONGITUDINAL JOINT: Type D joints shall be constructed in accordance with CMS 255.05. The nylon or plastic retention disc shall be clear or opaque white in color. Grout shall meet the requirements or CMS 253.02. 3/8" expansion anchors, 7/16" dia. may be used in lieu of the #5 x 24" deformed bar and shall be installed according to the manufacturer's recommendations. The use of self-drilling expansion shield anchors, 7/16" dia. shall not be permitted. See sheet 2/2 for additional details.

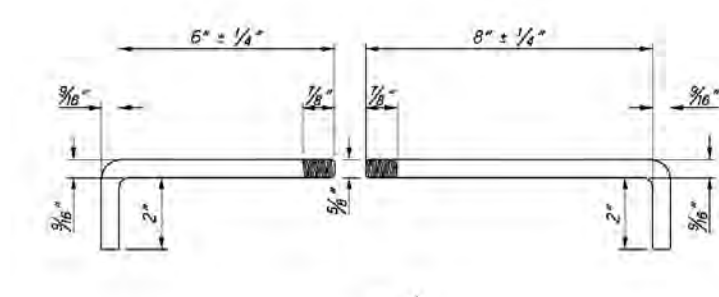
THIS DRAWING REPLACES BP-2.1 DATED 7-9-13.
 DATE OF THE DRAWING OR REVISION: 7-17-2015
 DESIGNED BY: David J. Humphrey
 CHECKED BY: D. Miller
 OFFICE OF ENGINEERING: LONGITUDINAL PAVEMENT JOINTS
 STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT NUMBER: 7-17-2015
 SHEET NUMBER: 1/2



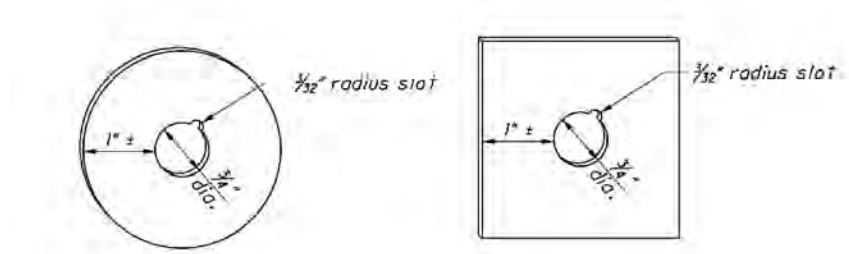
TIE BAR OR HOOK BOLT SPACING



HOOK BOLT ALTERNATE



HOOK BOLT

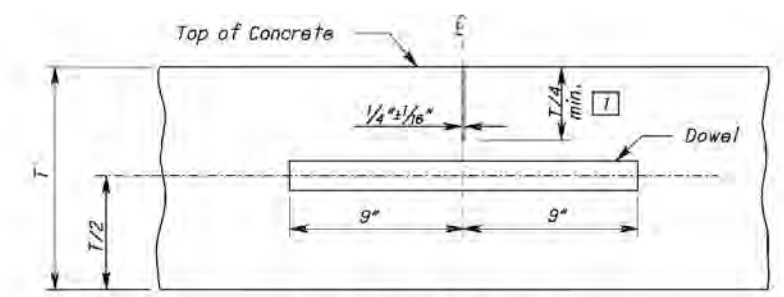


NYLON OR PLASTIC GROUT RETENTION DISCS FOR DOWEL/TIE BARS (1/16" min. thick)

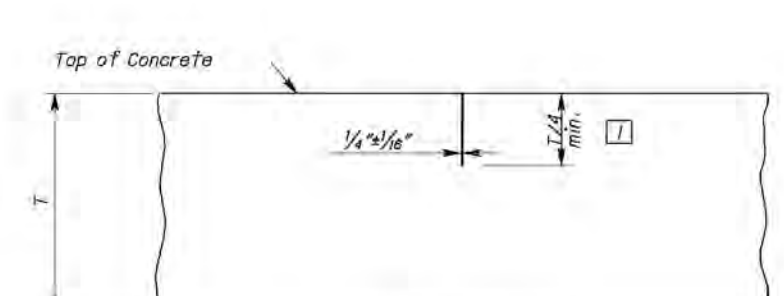
TABLE A			
Transverse Joint Spacing	Number of Tie Bars per Slab	Max. spacing between Tie Bars	Minimum Offset to Transverse Joint
15'	6	30"	15"
21'	9	30"	21"

EDGING: Edge butt joints with a thin metal edger having a radius of 1/8". Finish the free edges of the pavement with a thin metal edger having a radius of 1/8". Any impression left in the surface of the pavement by the flat part of the edging tool shall be eliminated.
HOOK BOLTS: Threaded hook bolts and alternates shall be turned to a tight fit when installed in couplings. Ensure the coupling is located on the same side of the joint as the shorter 16" +/- 1/4" hook bolt.
METAL STRENGTH: Tie bars, hook bolts assemblies, and the hook bolt alternate shall have a minimum yield strength of 40,000 psi.
SPACING: Tie bars shall not be located within 15" of any transverse joint.

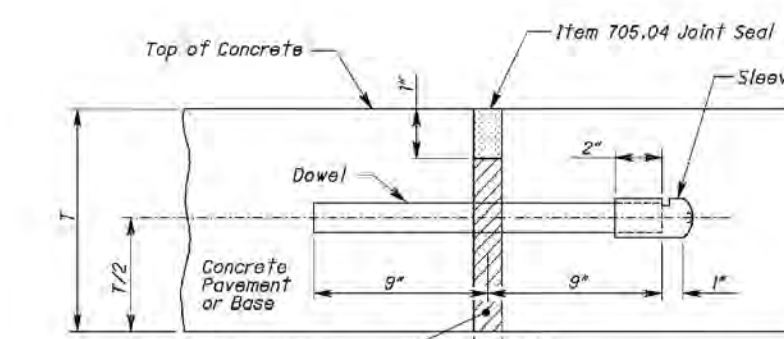
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 DATE OF THE DRAWING OR REVISION: 7-17-2015
 DESIGNED BY: David J. Humphrey
 CHECKED BY: D. Miller
 OFFICE OF ENGINEERING: LONGITUDINAL PAVEMENT JOINTS
 STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT NUMBER: 7-17-2015
 SHEET NUMBER: 2/2



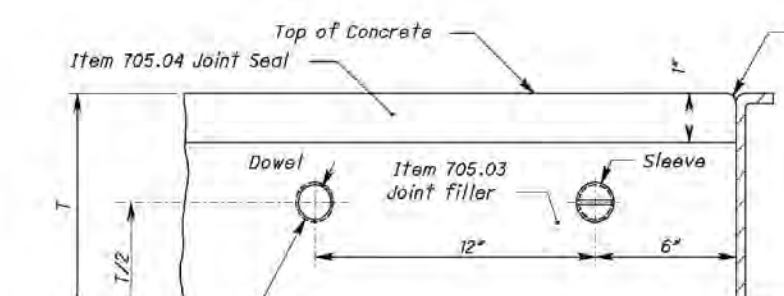
ITEM 451, 452 & 305



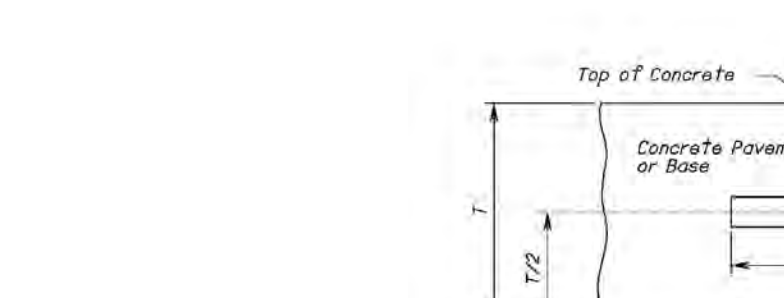
ITEM 452 and 305 (for shoulders, alleys, driveways, etc.)



SECTION THROUGH EXP. JOINT



SIDE ELEVATION OF EXP. JOINT (through Concrete Pavement or Base)



SECTION THROUGH CONSTRUCTION JOINT

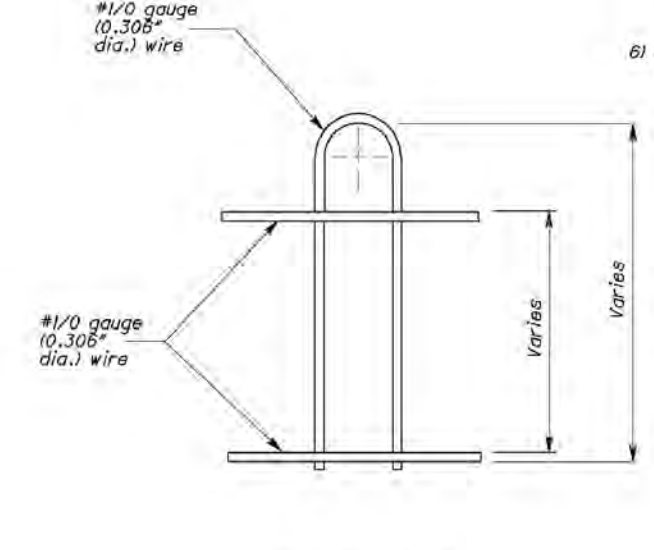
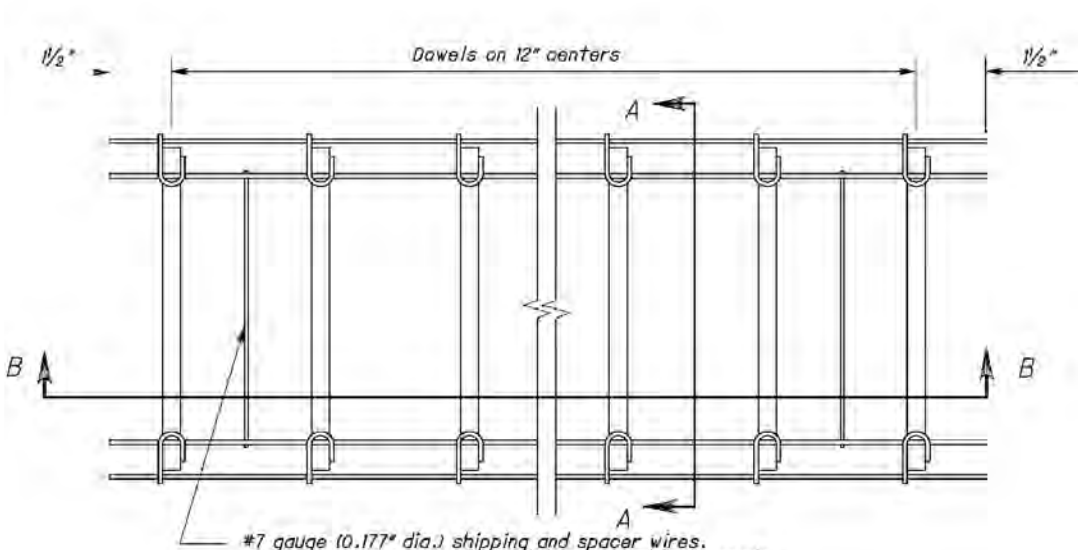
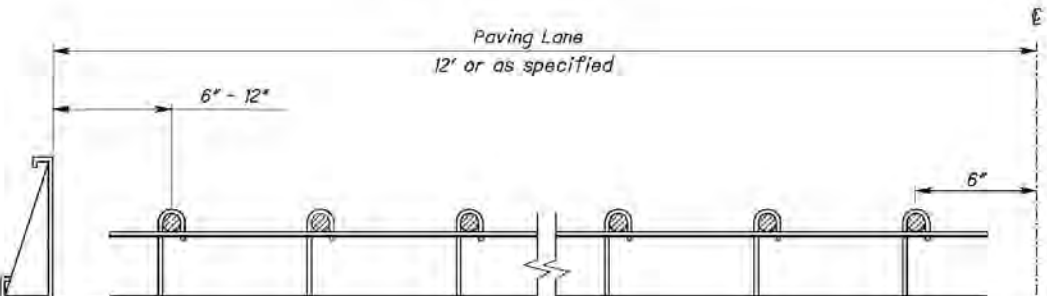
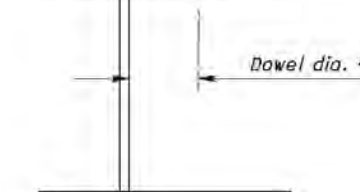
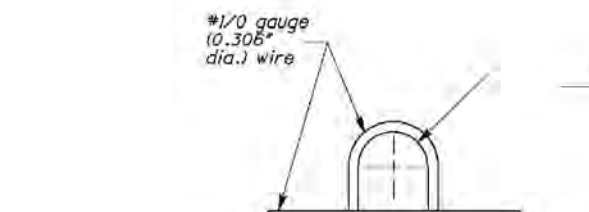
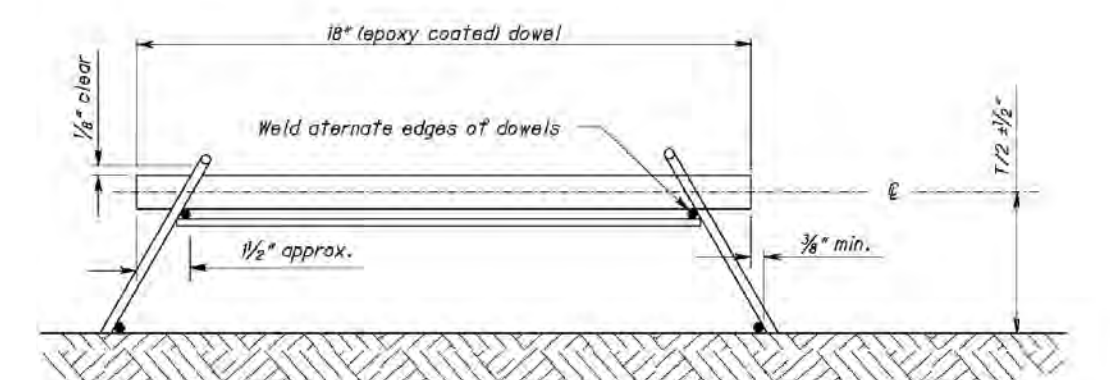
CONSTRUCTION JOINT

LEGEND
 Where T > 10', the sawcut depth shall be 1/2". If using entry saws, cut joints 2/4" to 2 1/2" deep and 3/8" wide.

NOTES
GENERAL: Notes and details shown on this drawing shall be considered in conjunction with and supplemental to the pertinent specifications for portland cement concrete pavement and bases, and related incidentals.
JOINT COMPONENTS: This drawing is intended for use with a uniform depth pavement. When the project involves the placing of variable depth pavement, the joint components shall be field in place in accordance with the methods shown in the plans or as approved by the Engineer.
CONTRACTION JOINTS: Contraction joints in Items 452 and 305 shall not be dowelled in alleys, private drives, or commercial drives. Contraction joints of the type specified shall be spaced in accordance with the CONTRACTION JOINT SPACING Table.

CONTRACTION JOINT SPACING	
Types of Pavement or Base	Maximum Spacing Between Joints
Item 451 Reinforced Concrete Pavement	21'
Item 452 Non-Reinforced Concrete Pavement	15'
Item 305 Concrete Base	15'

THIS DRAWING REPLACES BP-2.1 DATED 7-9-13.
 DATE OF THE DRAWING OR REVISION: 7-17-2015
 DESIGNED BY: Craig Landefeld
 CHECKED BY: W. Feehan
 OFFICE OF ENGINEERING: TRANSVERSE PAVEMENT JOINTS
 STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PROJECT NUMBER: 7-17-2015
 SHEET NUMBER: 1/2



- ### NOTES
- 1) Refer to SPS 451.09 B and 709.11 for dowel specifications.
 - 2) All wire sizes shown are minimum required.
 - 3) All wire intersections are to be welded.
 - 4) Stakes typically applied at working ends of dowel.
 - 5) TOLERANCES:
 - A) $\pm 1/4$ " per foot unless otherwise specified.
 - B) Centerline of individual dowels shall be parallel to each other, the surface and the centerline of the slab.
 - C) On centers should be $\pm 1/8$ ".
 - D) Dowels should be placed at mid-depth of slab.
 - 6) J-Leg or U-Leg to be installed on inside or outside of subframe.

OFFICE OF PAVEMENT ENGINEERING

DATE: 01-18-2003
 07-10-2008
 07-28-2009
 12-11-2009
 04-28-1997
 10-18-1994
 02-21-1992

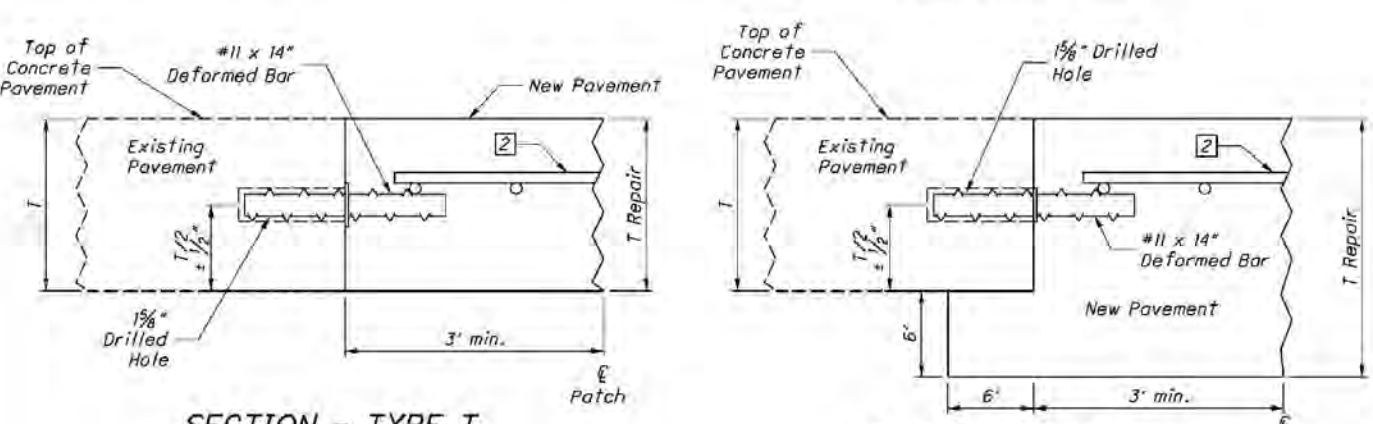
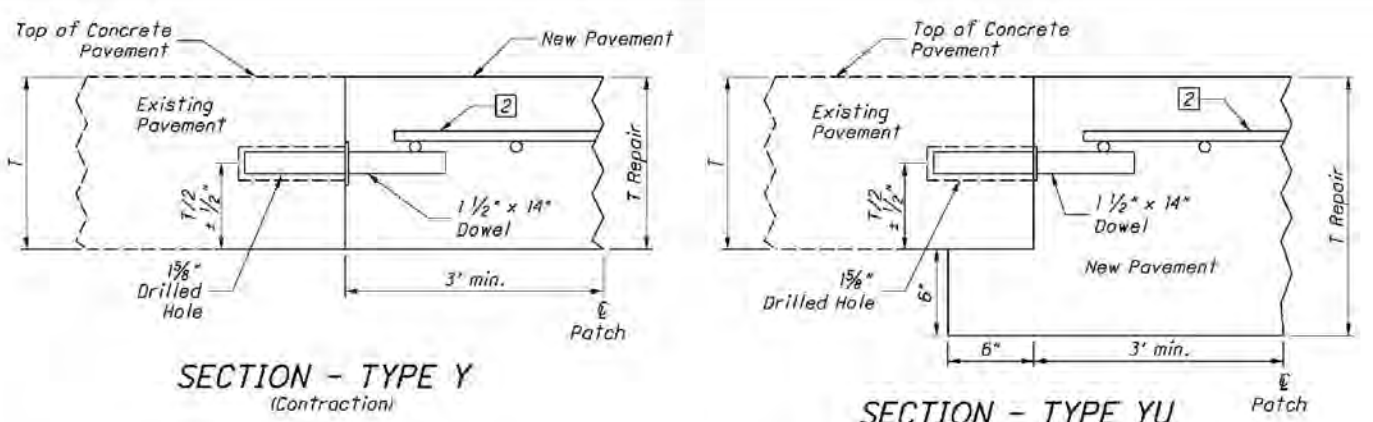
DESIGNED BY: W. Faehlan
 CHECKED BY: W. Faehlan
 C.E. 1000000000

STATE OF TEXAS DEPARTMENT OF TRANSPORTATION
 DISTRICT 11
 C. C. RIFE, DISTRICT ENGINEER

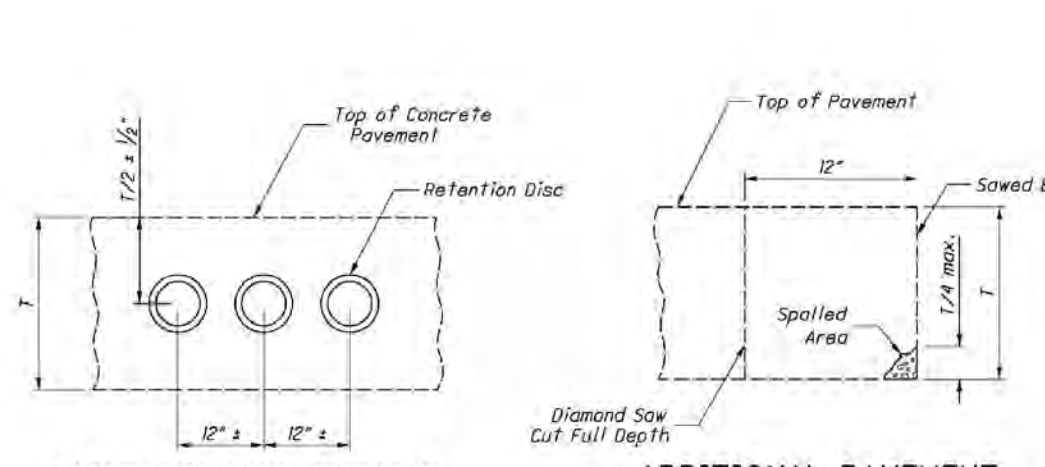
Craig Landefeld

TRANVERSE PAVEMENT JOINTS

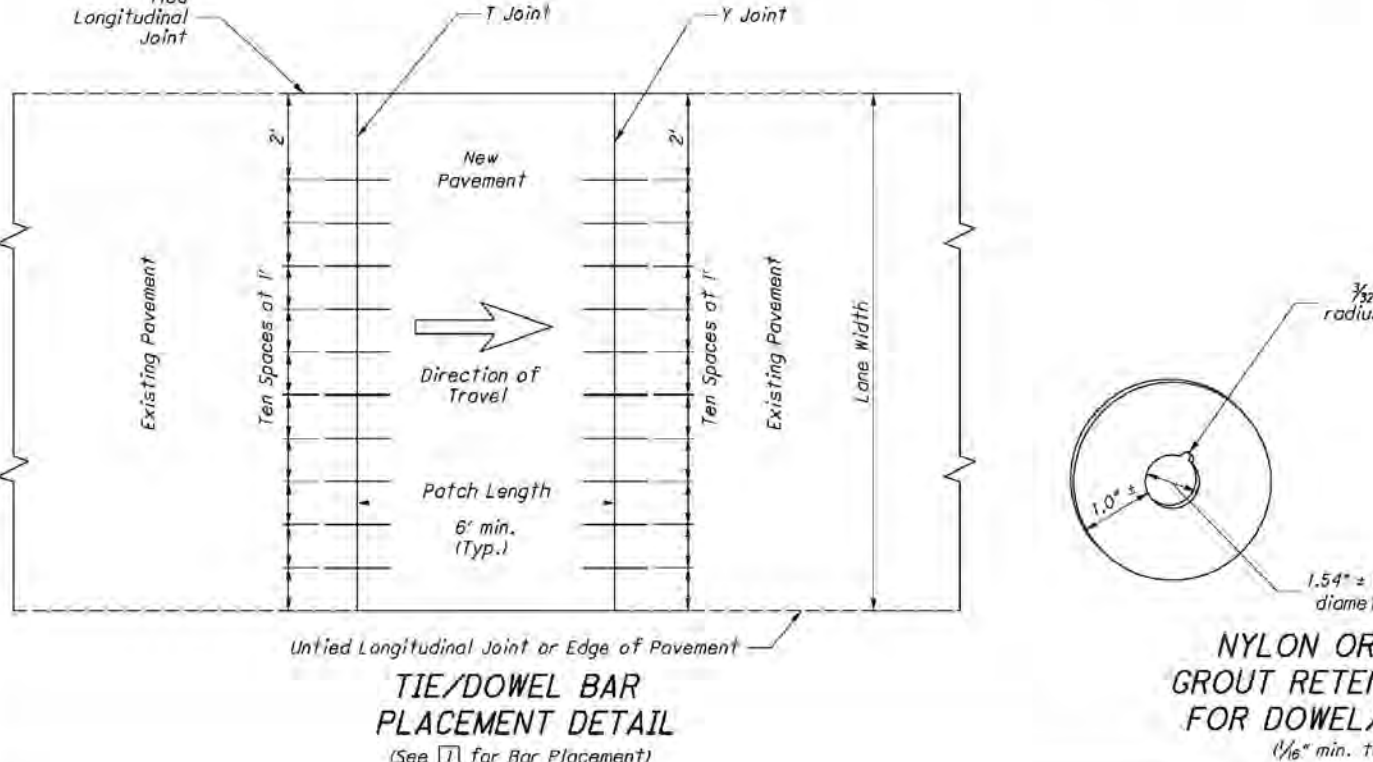
SECTION: BP-2.5
 SHEET: 2 OF 2



- ### NOTES
- GENERAL:** All joints shall be constructed normal to the centerline of the pavement lane unless otherwise specified in the plans. All dowel holes shall be drilled by a mechanical device that will allow independent adjustment of drill shafts in the horizontal and vertical directions. The device shall be capable of drilling a minimum of three holes at a time. All smooth dowels shall be coated with a bond breaking material conforming to SPS 451.09 B after they have been installed in the existing pavement and just prior to placing the patch. All dowels shall be placed parallel to the pavement surface and the centerline of the pavement lane. This standard drawing is intended for use in repairing both concrete and composite pavements. For clarity, asphalt overlays are not shown. When Prefabricated Edge Brains are used, they shall be placed after joint repairs are completed.
- TYPE N JOINT:** Joints referred to as Type N joints on the plan shall be constructed as contraction joints per SCD BP-2.2.
- ADDITIONAL PAVEMENT REMOVAL:** If, after the sawing and removal of the pavement from the area to be repaired, the face of the remaining pavement is spoiled or deteriorated for a height greater than one-fourth the thickness of the rigid pavement, an additional saw cut shall be made as shown and as directed by the Engineer. This additional work shall be measured for additional payment for full depth pavement repairs, rigid pavement removal and replacement.
- LONGITUDINAL JOINT:** For patches 10' or greater in length, the longitudinal joint shall be constructed per SCD BP-2.1. The tie bars or hook bolts shall be spaced according to SCD BP-2.1.



- ### LEGEND
- 1) Bars shall be placed 2" from all tied longitudinal joints and continue across with a spacing to the edge of pavement or an untied longitudinal joint. Where lane widths are between two tied longitudinal joints, begin bars 2" from each tied longitudinal joint and continue across with a 1' spacing.
 - 2) Reinforcement will be required for all repairs greater than 10' in length or for Class FS repairs that will be opened to traffic within 24 hours of placement. The fabric shall consist of #8 S or #6 S longitudinal wires spaced 6" c/c and #4 or #4 transverse wires spaced 12" c/c. The clearance from the end of the wire fabric to the edge of pavement or new transverse joint shall be 4' x 2'.
 - 3) Nylon or plastic grout retention discs shall be clear or opaque white in color.



DATE: 07-18-2013
 DRAWN BY: David J. Humphrey
 CHECKED BY: D. Miller
 C.E. 1000000000

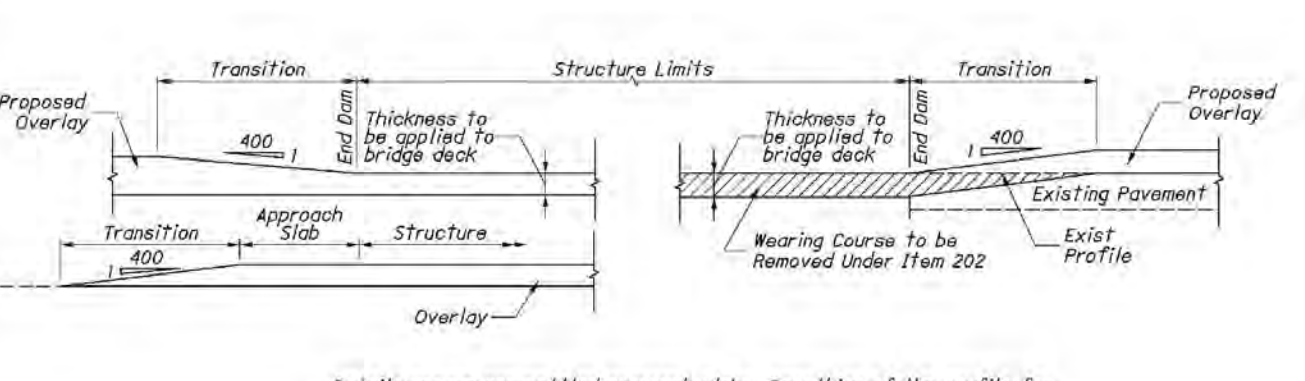
STATE OF TEXAS DEPARTMENT OF TRANSPORTATION
 DISTRICT 11
 C. C. RIFE, DISTRICT ENGINEER

David J. Humphrey

OFFICE OF ENGINEERING

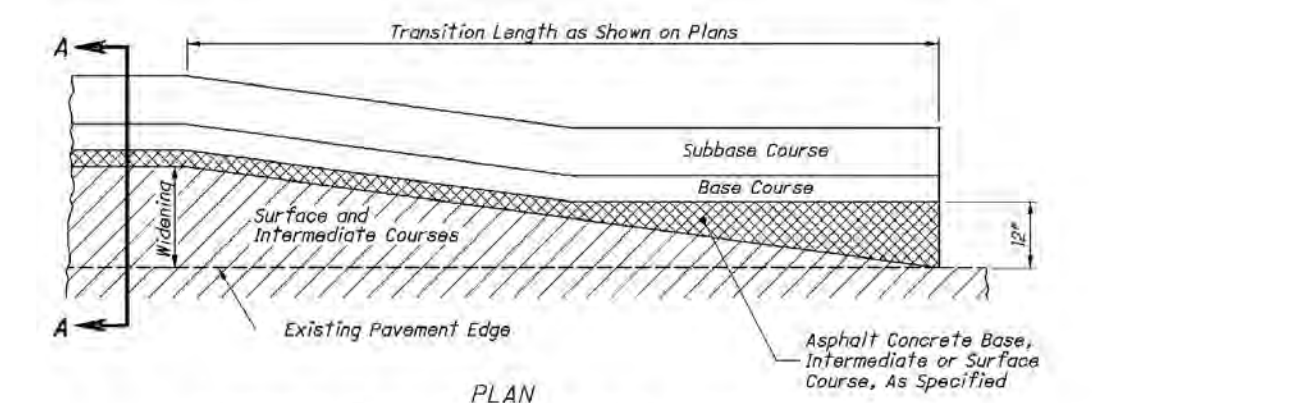
TRANVERSE PAVEMENT JOINTS

SECTION: BP-2.5
 SHEET: 2 OF 2

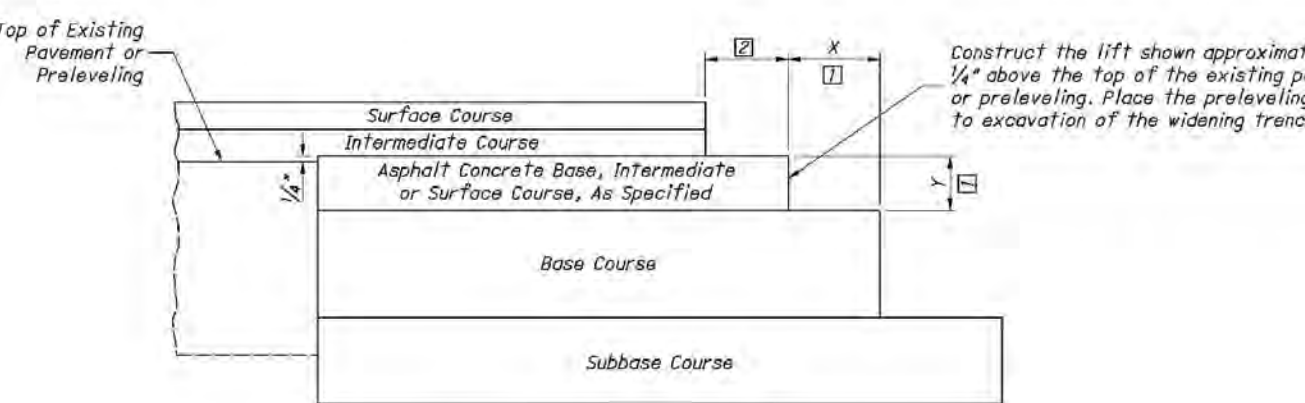


TRANSITIONING AT STRUCTURES

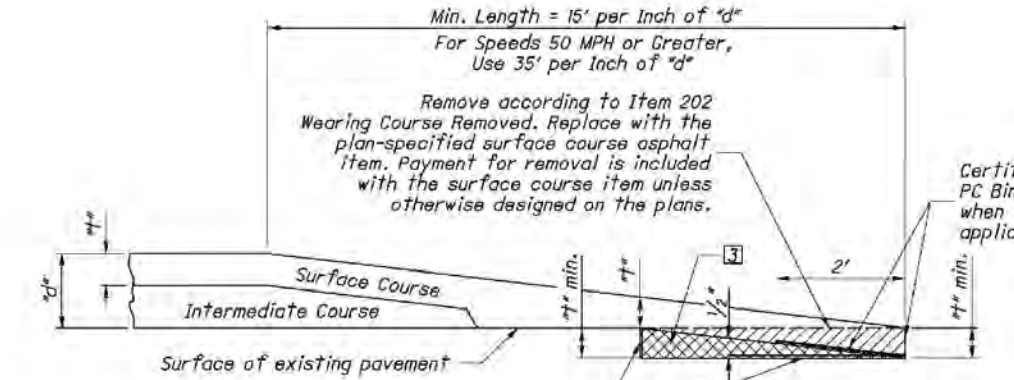
Details assume non-settled approach slabs. Smoothing of the profile for Settlement is required per plan grades or as directed by the Engineer.



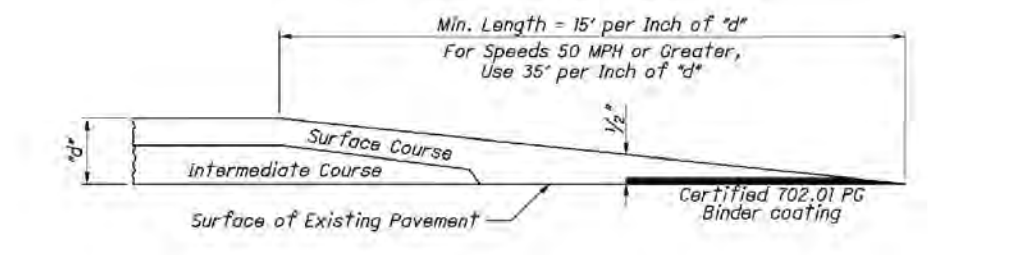
MERGING EDGE OF PAVEMENT WIDENING WITH EDGE OF EXISTING PAVEMENT



COURSE DETAIL FOR WIDENING



Butt Joint



Taper End

NOTE: Butt joint is required unless the taper end is specified in the plans or approved by the Engineer.

BUTT JOINTS AND TAPER ENDS

Values for "x" and "y" are obtained from the plans.

LEGEND

- 1) The extended width (x) of a base or subbase lift shall be equal to the depth (y) of the overlying lift or 6', whichever is greater, or as shown on the plans.
- 2) The extended width shall be equal to the combined thickness of the surface and intermediate courses, or 4', whichever is greater.
- 3) Permissible removal and replacement.

DATE: 01-18-2003
 07-10-2008
 07-28-2009
 12-11-2009
 04-28-1997
 10-18-1994
 02-21-1992

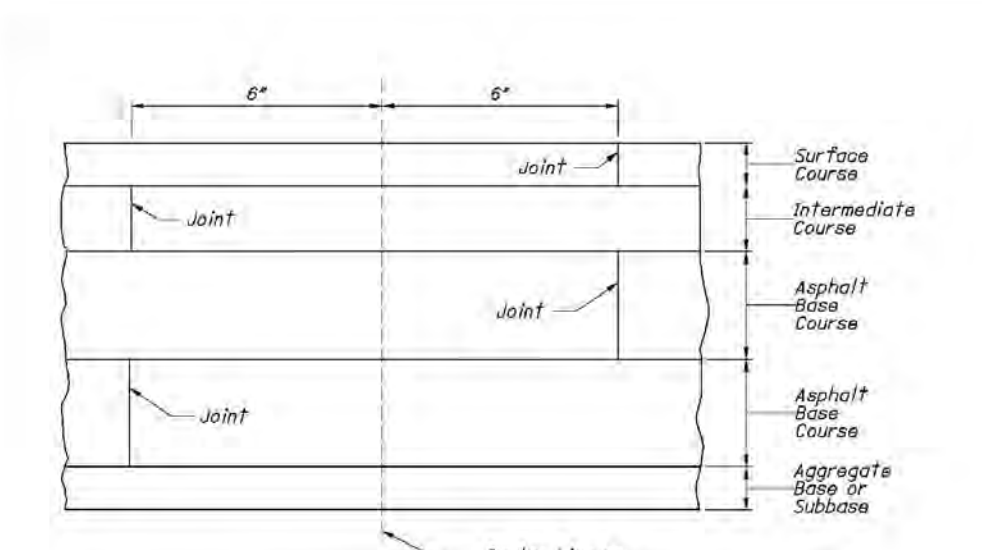
DESIGNED BY: W. Faehlan
 CHECKED BY: W. Faehlan
 C.E. 1000000000

STATE OF TEXAS DEPARTMENT OF TRANSPORTATION
 DISTRICT 11
 C. C. RIFE, DISTRICT ENGINEER

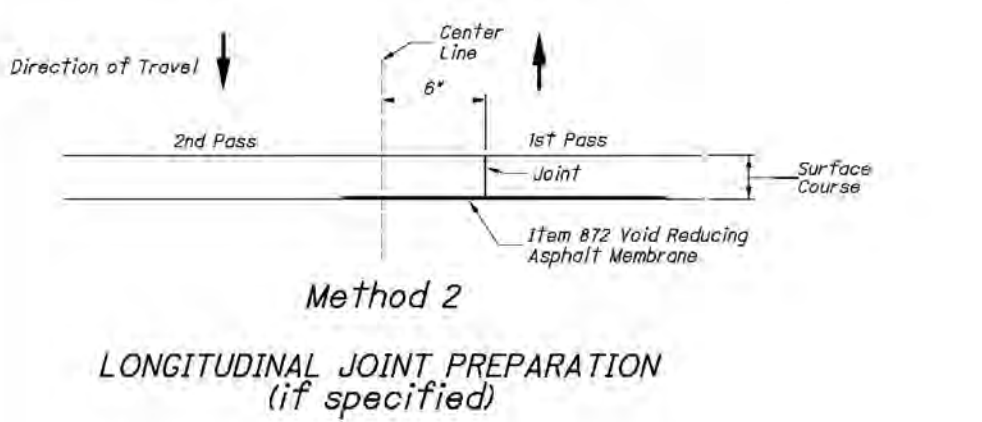
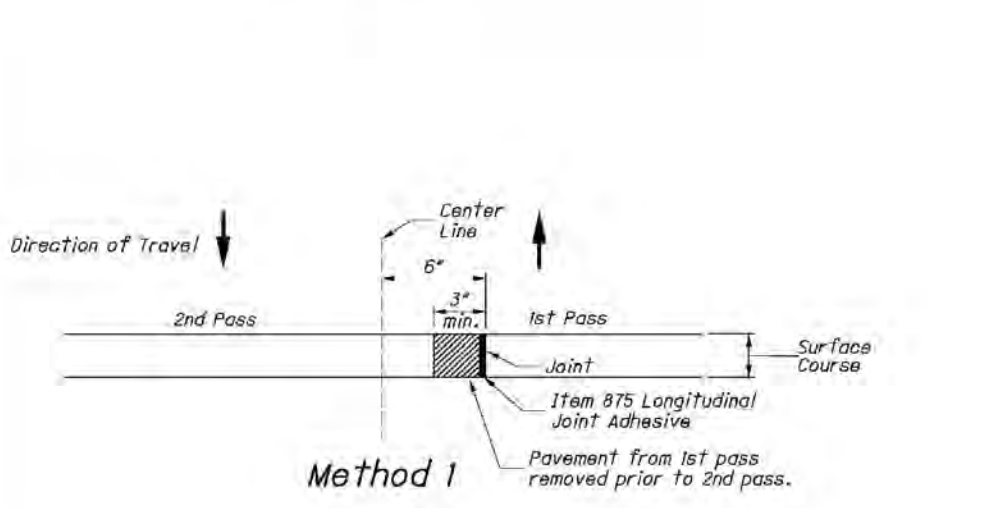
Craig E. Landefeld

ASPHALT PAVING

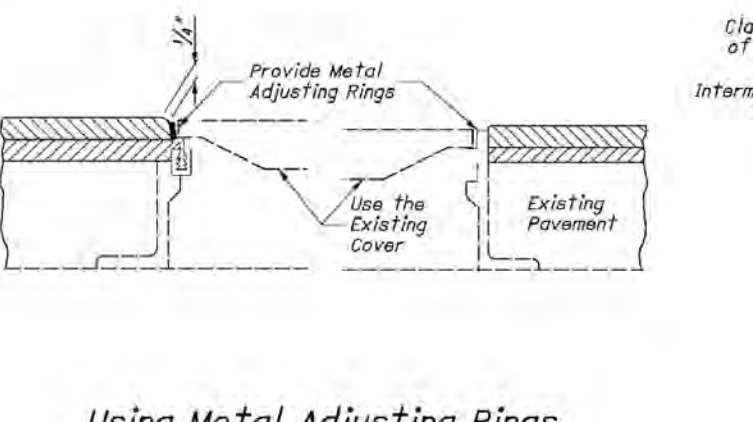
SECTION: BP-3.1
 SHEET: 1 OF 2



LAPPING LONGITUDINAL JOINTS (see notes)

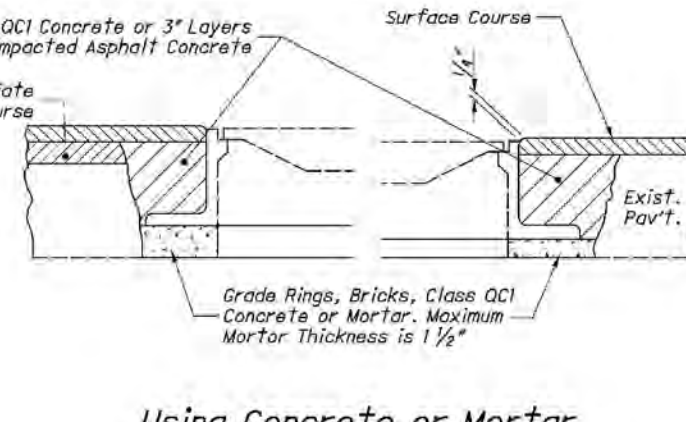


LONGITUDINAL JOINT PREPARATION (if specified)



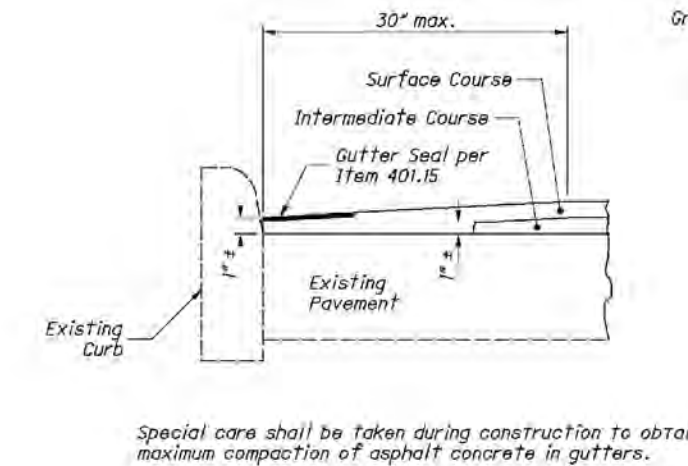
Using Metal Adjusting Rings

MANHOLES ADJUSTED TO GRADE

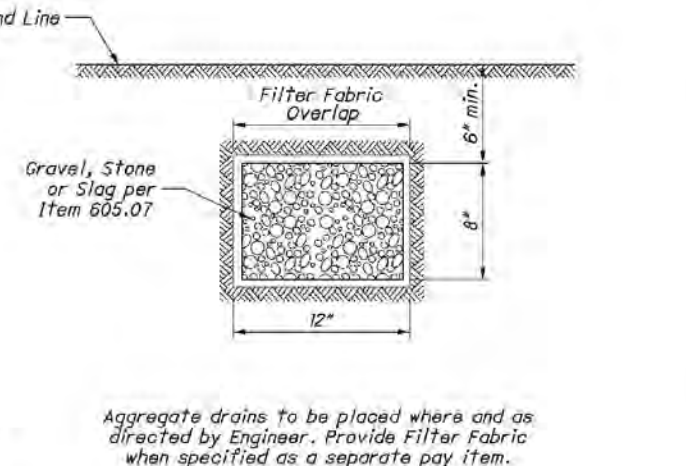


Using Concrete or Mortar

MANHOLES ADJUSTED TO GRADE



GUTTER FINISH



AGGREGATE DRAIN

- ### NOTES
- GENERAL:** Lap all longitudinal joints as shown regardless of the number of courses being placed. Do not construct a longitudinal joint directly above and in line with the longitudinal joint of previously placed material.
- METAL ADJUSTING RINGS:** Metal adjusting rings shall: (a) Attach securely to the existing frame by welding or mechanical devices; (b) Consist either of cast metal having an integral rim and seat, or be fabricated metal with a sturdy connection between the seat and rim; and (c) Provide an even seat for the manhole cover. In addition, the adjusting ring type shall be a design acceptable to the local governmental agency responsible for street and sewer maintenance. Any installation unacceptable to the Engineer shall be replaced by the Contractor at his expense.
- PAVEMENT:** The Department will pay for manholes adjusted to grade using Item 611 Manhole, Catch Basin, or Inlet Adjusted to Grade. The Department will pay for longitudinal joint preparation using Item 874 Longitudinal Joint Preparation.

DATE: 07-18-2013
 DRAWN BY: David J. Humphrey
 CHECKED BY: D. Miller
 C.E. 1000000000

STATE OF TEXAS DEPARTMENT OF TRANSPORTATION
 DISTRICT 11
 C. C. RIFE, DISTRICT ENGINEER

David J. Humphrey

OFFICE OF ENGINEERING

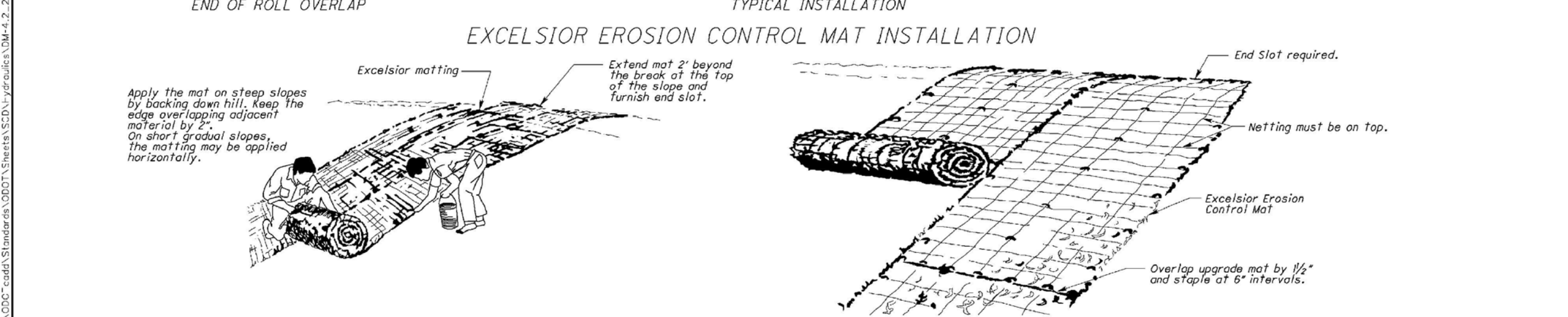
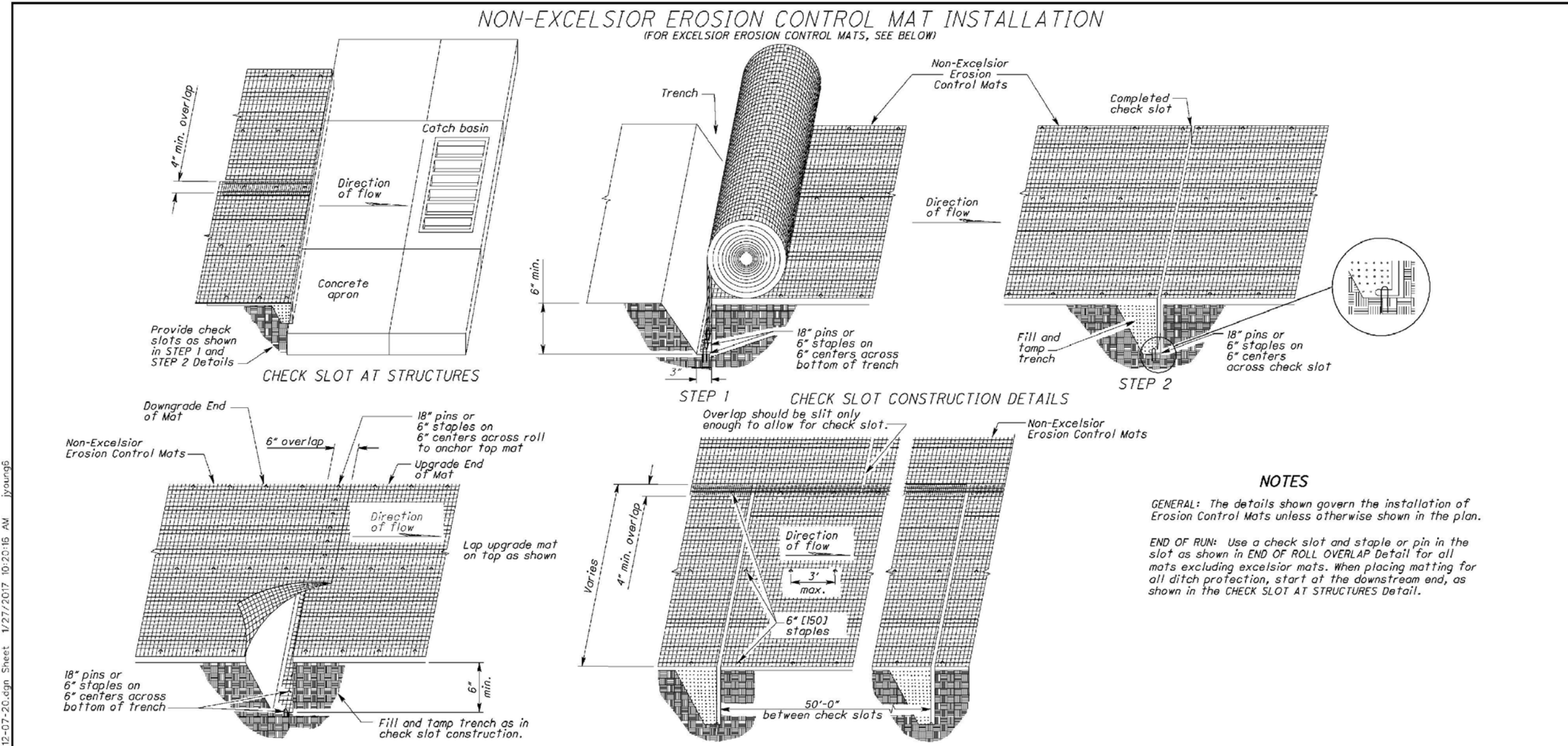
ASPHALT PAVING

SECTION: BP-3.1
 SHEET: 2 OF 2

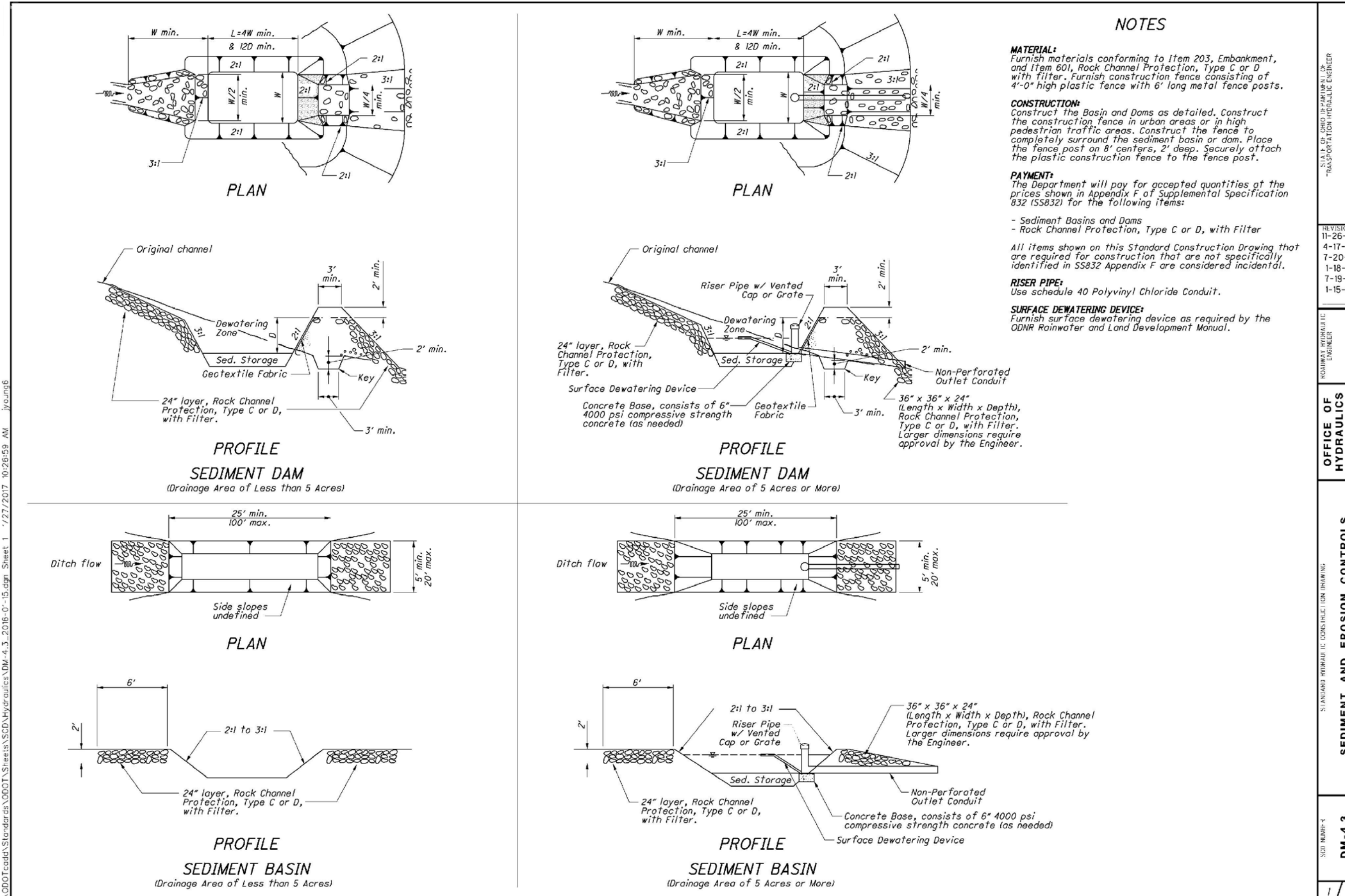
O.D.O.T. STANDARD DRAWINGS

OLD FREDERICKTOWN ROAD WATERLINE EXTENSION

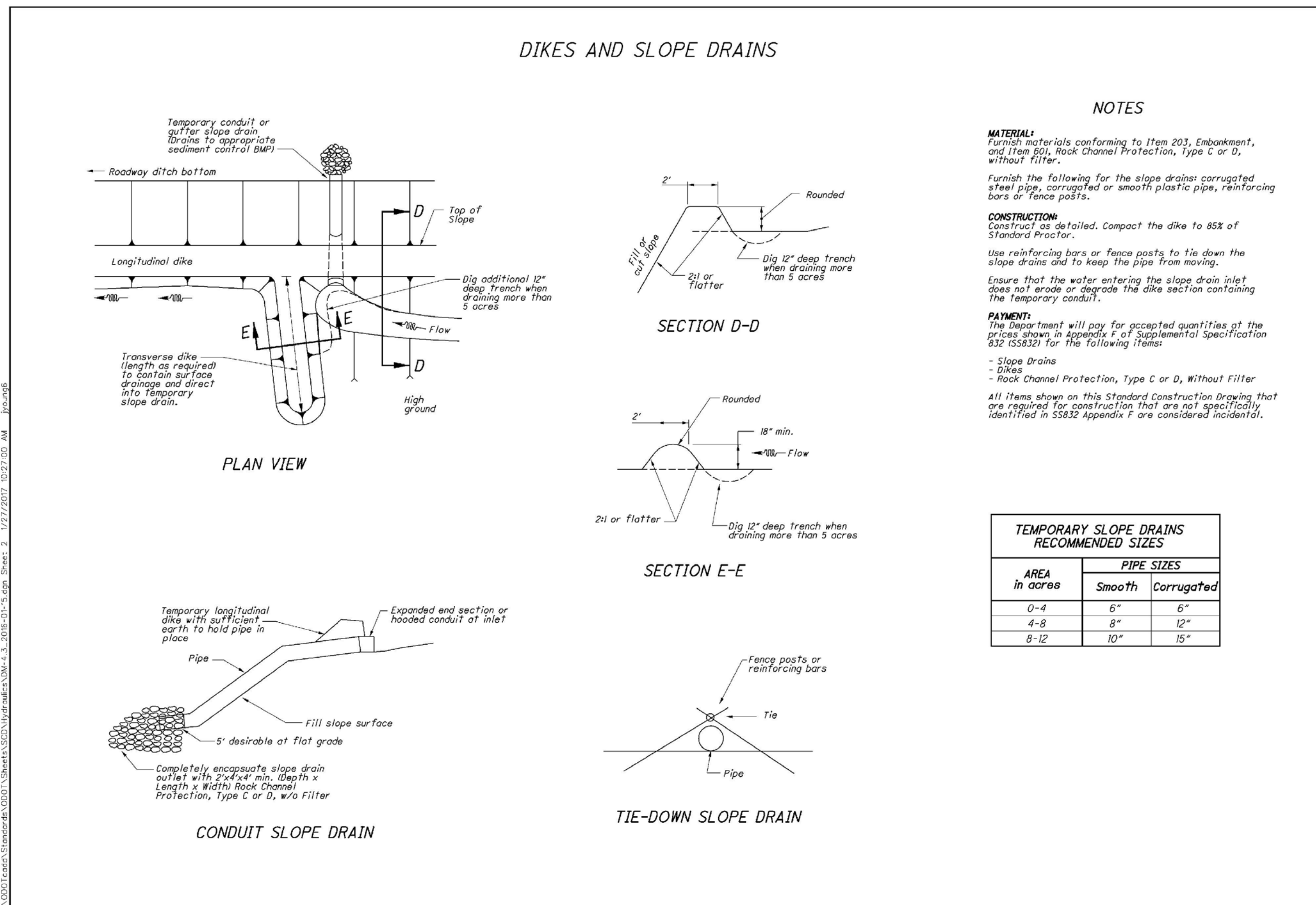
CAL: J.F.B.
 DATE: 2/21
 CHD: B.V.D.G.D.
 DATE: 2/21



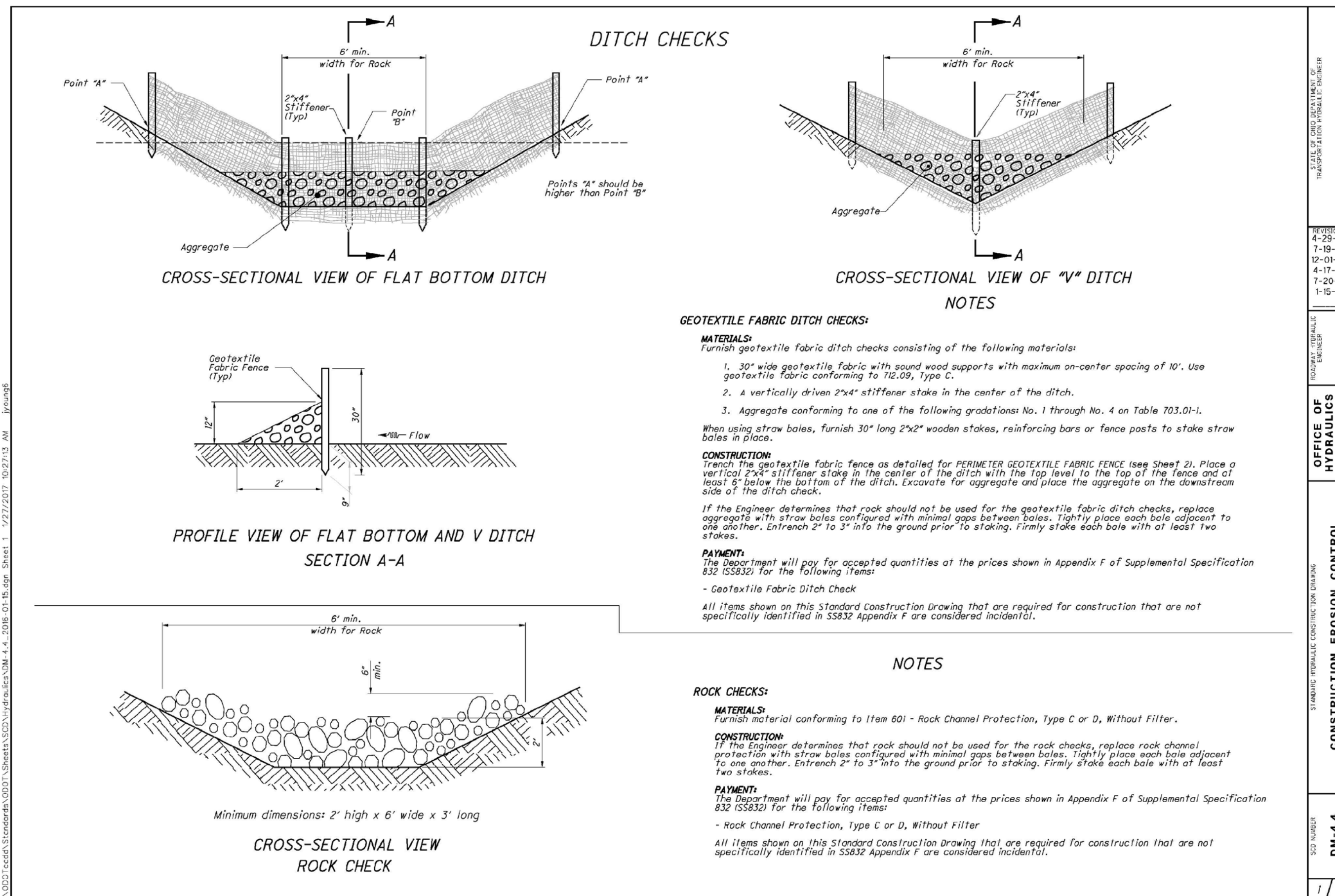
SCALE OF THIS DRAWING: AS SHOWN
 PROJECT NUMBER: 1044.3.2018-01-10-100
 DRAWING NUMBER: DM-4.2
 DATE: 10/21/10
 DRAWN BY: JEFFERY E. SYAR
 CHECKED BY: M. COZZOLI
 OFFICE OF HIGHWAY ENGINEERING
 STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION
 STANDARD DRAWING FOR ROADWAY CONSTRUCTION



SCALE OF THIS DRAWING: AS SHOWN
 PROJECT NUMBER: 1044.3.2018-01-10-100
 DRAWING NUMBER: DM-4.3
 DATE: 10/21/10
 DRAWN BY: JEFFERY E. SYAR
 CHECKED BY: M. COZZOLI
 OFFICE OF HIGHWAY ENGINEERING
 STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION
 STANDARD DRAWING FOR ROADWAY CONSTRUCTION



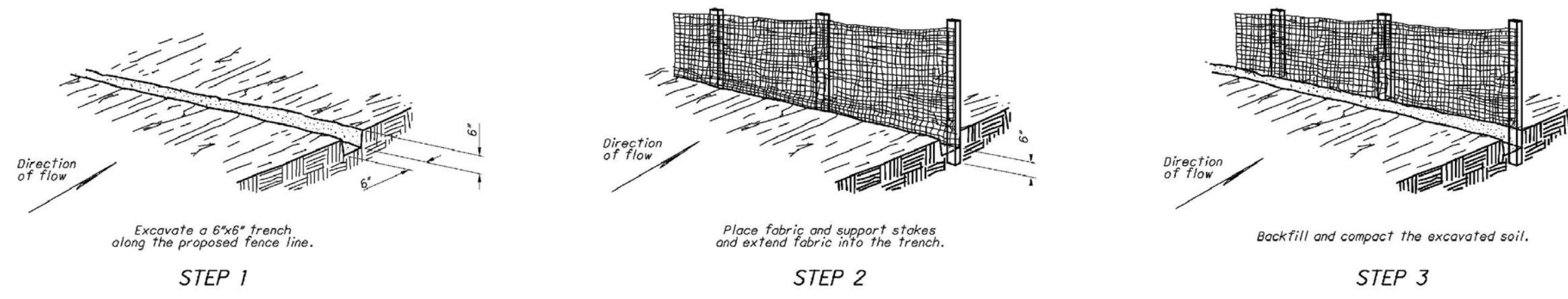
SCALE OF THIS DRAWING: AS SHOWN
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 DRAWING NUMBER: DM-4.3
 DATE: 10/21/10
 DRAWN BY: JEFFERY E. SYAR
 CHECKED BY: M. COZZOLI
 OFFICE OF HIGHWAY ENGINEERING
 STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION
 STANDARD DRAWING FOR ROADWAY CONSTRUCTION



SCALE OF THIS DRAWING: AS SHOWN
 PROJECT NUMBER: 1044.3.2018-01-10-100
 DRAWING NUMBER: DM-4.4
 DATE: 10/21/10
 DRAWN BY: JEFFERY E. SYAR
 CHECKED BY: M. COZZOLI
 OFFICE OF HIGHWAY ENGINEERING
 STATE OF MICHIGAN DEPARTMENT OF TRANSPORTATION
 STANDARD DRAWING FOR ROADWAY CONSTRUCTION

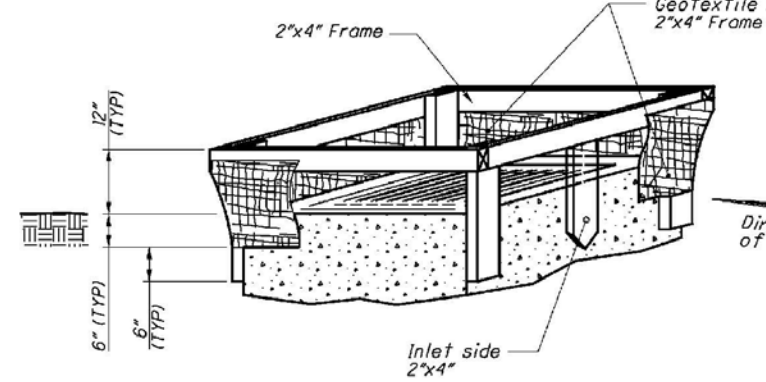
O.D.O.T. STANDARD DRAWINGS
 OLD FREDERICKTOWN ROAD WATERLINE EXTENSION

PERIMETER GEOTEXTILE FABRIC FENCE



- NOTES**
- MATERIALS:** Furnish 30" wide geotextile fabric with sound wood supports with maximum on-center spacing of 10'. Use geotextile fabric conforming to 712.09, Type C.
- CONSTRUCTION:** Trench the geotextile fabric fence as detailed. The contractor may elect to trench the fence detailed on steps 1 through 3 in one plowing operation.
- PAYMENT:** The Department will pay for accepted quantities of the prices shown in Appendix F of Supplemental Specification 55832 for the following items:
 - Perimeter Geotextile Fabric Fence

INLET PROTECTION



- NOTES**
- MATERIALS:** Furnish inlet protection consisting of 18" wide geotextile fabric fence with a securely nailed 2x4" wood frame with a vertically driven 2x4" on the inlet, or flow, side of the structure. Use geotextile fabric conforming to 712.09, Type C.
- CONSTRUCTION:** Construct an 18" wide geotextile fabric fence supported around a storm drain inlet or catch basin with a securely nailed 2x4" wood frame. Excavate a 6" trench around the inlet, and drive support posts 6" below the excavated trench bottom. Stretch the fabric around the frame, secure it tightly, ensuring that 2" of fabric is in the trench. Overlap the fabric on one side of the inlet so that the fabric ends are not attached to the same post. Backfill and compact the excavated soil tightly onto the fabric. Place a vertical 2x4" in the center of the inlet so that the top is at the top of the fence and the bottom is at least 6" below the bottom of the ditch.
- PAYMENT:** The Department will pay for accepted quantities of the prices shown in Appendix F of Supplemental Specification 55832 for the following items:
 - Inlet Protection

OFFICE OF ENGINEERING
JEFFERY E. SYAR
DM-4.4
CONSTRUCTION EROSION CONTROL

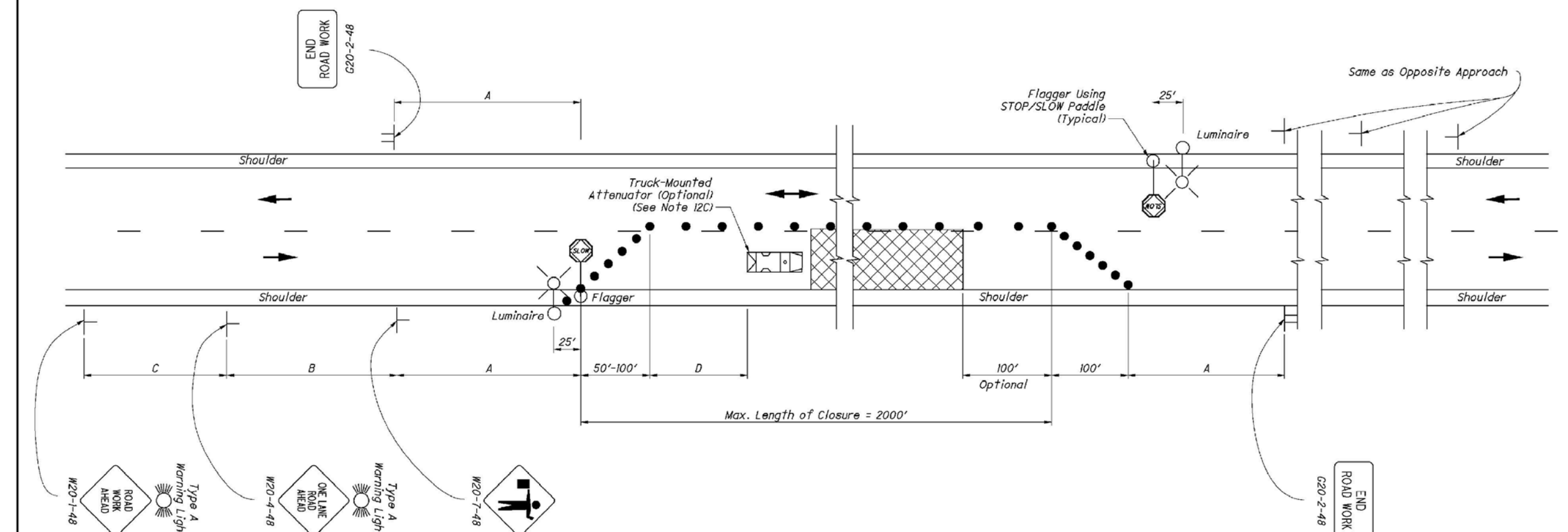


TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
Two-Lane (45-60 MPH)	100	100	100
Two-Lane (60-70 MPH)	350	350	350
Two-Lane (70-80 MPH)	500	500	500

TABLE II

SPEED LIMIT (MPH)	MIN.	MAX.
25	155	
30	200	
35	250	
40	305	
45	360	
50	425	
55	495	
60	570	

LEGEND

- WORK AREA
- DRUMS/CONES
- DIRECTION OF TRAVEL
- SHADOW VEHICLE WITH TMA

MT-97.10
OFFICE OF ENGINEERING
DAVID L. HOLSTEIN
CONSTRUCTION EROSION CONTROL

- NOTES:**
- FLAGGERS**
- 1. Flaggers, one for each direction, shall be used to control traffic continuously for as long as a one lane operation is in effect. The flaggers shall be able to communicate with each other at all times.
- LENGTH OF CLOSURE**
- 2. Several small work areas close together should be combined into one work zone. However, the closure shall not be more than 2000' long unless approved by the Engineer. The minimum length between closures shall be 2000'. Only one side of the road shall be closed in any one work zone.
- SIGN LOCATION AND SPACING**
- 3A. The minimum spacing between work zone signs is shown in Table I. Maximum spacing shall not be greater than 1.5 times the distances shown in Table I.
 - 3B. Sign spacing shall be adjusted to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200' for speeds of 45 mph or less and a minimum of 400' for speeds of 50 mph or greater.
 - 3C. The location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment.
- ADJUSTMENTS FOR SIGHT DISTANCE**
- 4. The location of the flagger station and the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment.
- BASIC SIGNING**
- 5A. ROAD WORK AHEAD (W20-1) signs shall be provided on entrance ramps or roadways entering the work limits.
 - 5B. END ROAD WORK (W20-2) signs are only required for lane closures of more than 1 day. If extended, these signs be placed on the mainline, on all exit ramps, and on roadways exiting the work limits.
 - 5C. Overlapping of signing for adjacent projects should be avoided where the messages could be confusing. Any ROAD WORK AHEAD (W20-1) or END ROAD WORK (W20-2) sign which falls within the limits of another traffic control zone shall be omitted or covered during the period when both projects are active.
- SIGNING DETAILS**
- 6A. The Advisory Speed (W31-1) plaque shall be used when specified in the plan.
 - 6B. 36" warning signs may be used when the approach speed limit is 40 mph or less.
- FLASHING WARNING LIGHTS**
- 7. Type A flashing warning lights shown on the ROAD WORK AHEAD (W20-1) signs and on the LANE CLOSED AHEAD (W20-5) signs are required whenever a night lane closure is necessary.
- DRUMS / CONES**
- 8A. Drum spacing shall be as follows:
 - a) Spacing along the closure shall be 40' center-to-center.
 - b) Spacing along the approach taper shall be 10' center-to-center.
 - 8B. Cones may be substituted for drums as follows:
 - a) Cones used for daytime traffic control shall have a minimum height of 28".
 - b) Cones used for nighttime traffic control shall have a minimum height of 42".
 - c) Use of cones of night shall be prohibited along tapers.
 - 8C. Provisions shall be made to stabilize the cones and drums to prevent them from blowing over.
 - 8D. A minimum of two drums shall be used to close the paved shoulder.
- (RESERVED FOR FUTURE USE)**
- 9A. (Intentionally blank)
- AREA ILLUMINATION**
- 10A. Adequate area illumination of each flagger station shall be provided at night. Use of portable flood lighting is acceptable. Luminaires shall be located adjacent to each flagger station.
 - 10B. To ensure the adequacy of floodlight placement and the elimination of glare, the Contractor and the Engineer shall drive through the worksite each night when the lighting is in place. Light placement and shielding shall be adjusted to the satisfaction of the Engineer.
- INTERSECTION / DRIVEWAY ACCESS**
- 11. Within the length of closure, provision shall be made to control traffic entering from intersecting streets and major drives as necessary to prevent wrong-way movements and to keep vehicles off of new pavement not ready for traffic. The Contractor shall:
 - a) Place across the closed lane, either three drums (cones) or barricades, and/or
 - b) Provide an additional flagger of every public street intersection and major driveway.
- DRUMS (CONES) PLACED ACROSS THE CLOSED LANE SHALL BE LOCATED 25' BEYOND THE PROJECTED PAVEMENT EDGES OF THE DRIVEWAY OR CROSS HIGHWAY, AS SHOWN IN STANDARD CONSTRUCTION DRAWINGS (SEE MT-97.10 OR MT-97.12. FOR BARRICADES, SEE SCD MT-101.60).**
- EXISTING STOP SIGNS SHALL BE RELOCATED AS NECESSARY TO ASSURE PROPER LOCATION FOR THE TRAFFIC CONDITIONS. THE METHOD OF CONTROL SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.**

CONDITION I

DROP-OFFS BETWEEN ADJACENT TRAVELED LANE(S) / PAVED SHOULDER (Freeways, Expressways, other Roadways ≥ 45 mph)

CONDITION II

DROP-OFFS BEYOND EDGE OF TRAVELED LANE(S) / PAVED SHOULDER (Freeways, Expressways, other Roadways ≥ 45 mph and Minimal Driveways)

OPTIONAL WEDGE TREATMENT

(MILLING OR RESURFACING)

CONDITION III

DROP-OFFS BEHIND CURB WHERE CURB IS 6" OR GREATER IN HEIGHT AND THE LEGAL SPEED IS 40 MPH OR LESS

CONDITION IV

TEMPORARY PAVEMENT WEDGE AT TRANSVERSE JOINTS IN OPEN TRAVELED LANES / PAVED SHOULDER

X	D	AB	Treatment Required	
			Day	Night
0' - 10'	$\leq 12'$	Any	None	Drums
0' - 10'	$> 12'$	Any	Drums	Drums
$> 10'$	Any	Any	None	None

MT-97.10
OFFICE OF ROADWAY ENGINEERING
BRENTON BOGARD
CONSTRUCTION EROSION CONTROL

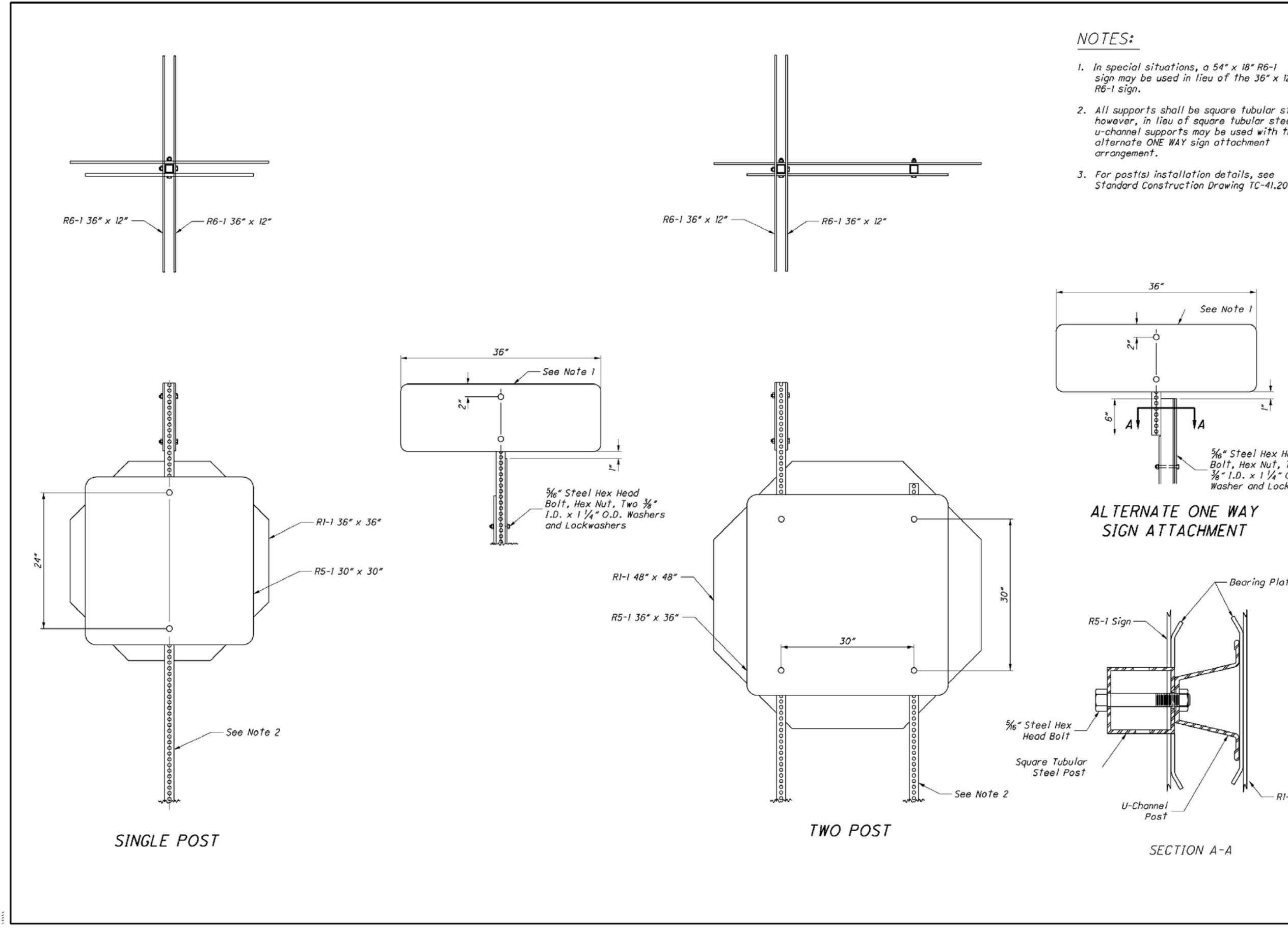
THIS DRAWING REPLACES MT-97.10 DATED 07-18-2019.

THIS DRAWING REPLACES MT-97.10 DATED 07-18-2019.

OLD FREDERICKTOWN ROAD WATERLINE EXTENSION

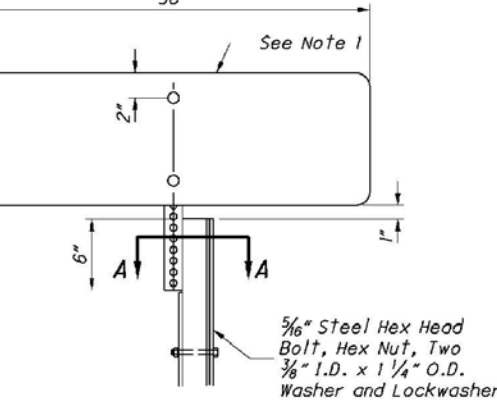
O.D.O.T. STANDARD DRAWINGS

CALC BY: J.F.B.
DATE: 2/21
CHKD BY: D.G.D.
DATE: 2/21

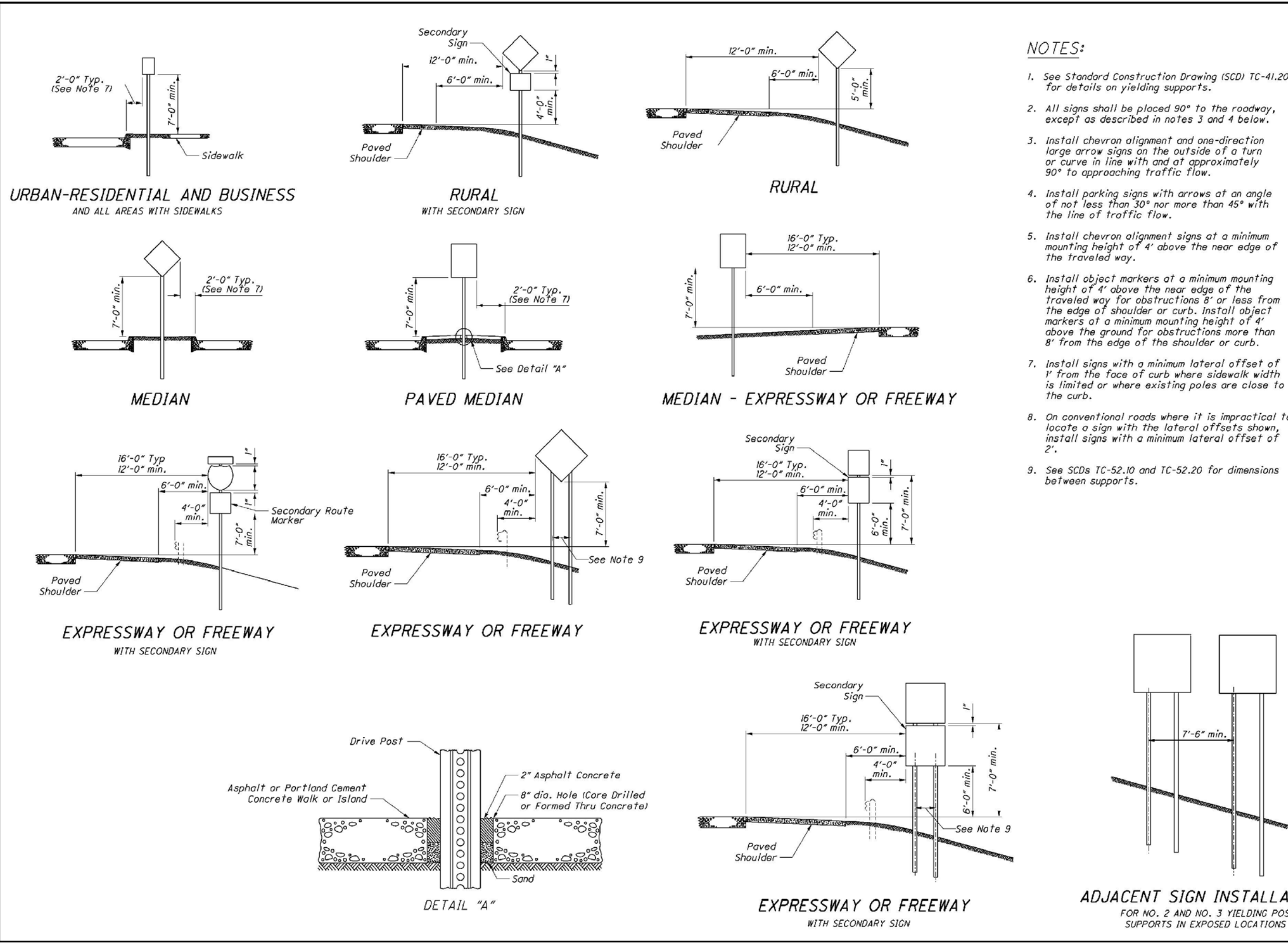


NOTES:

1. In special situations, a 54" x 18" R6-1 sign may be used in lieu of the 36" x 12" R6-1 sign.
2. All supports shall be square tubular steel; however, in lieu of square tubular steel, u-channel supports may be used with the alternate ONE WAY sign attachment arrangement.
3. For post installation details, see Standard Construction Drawing TC-41.20.



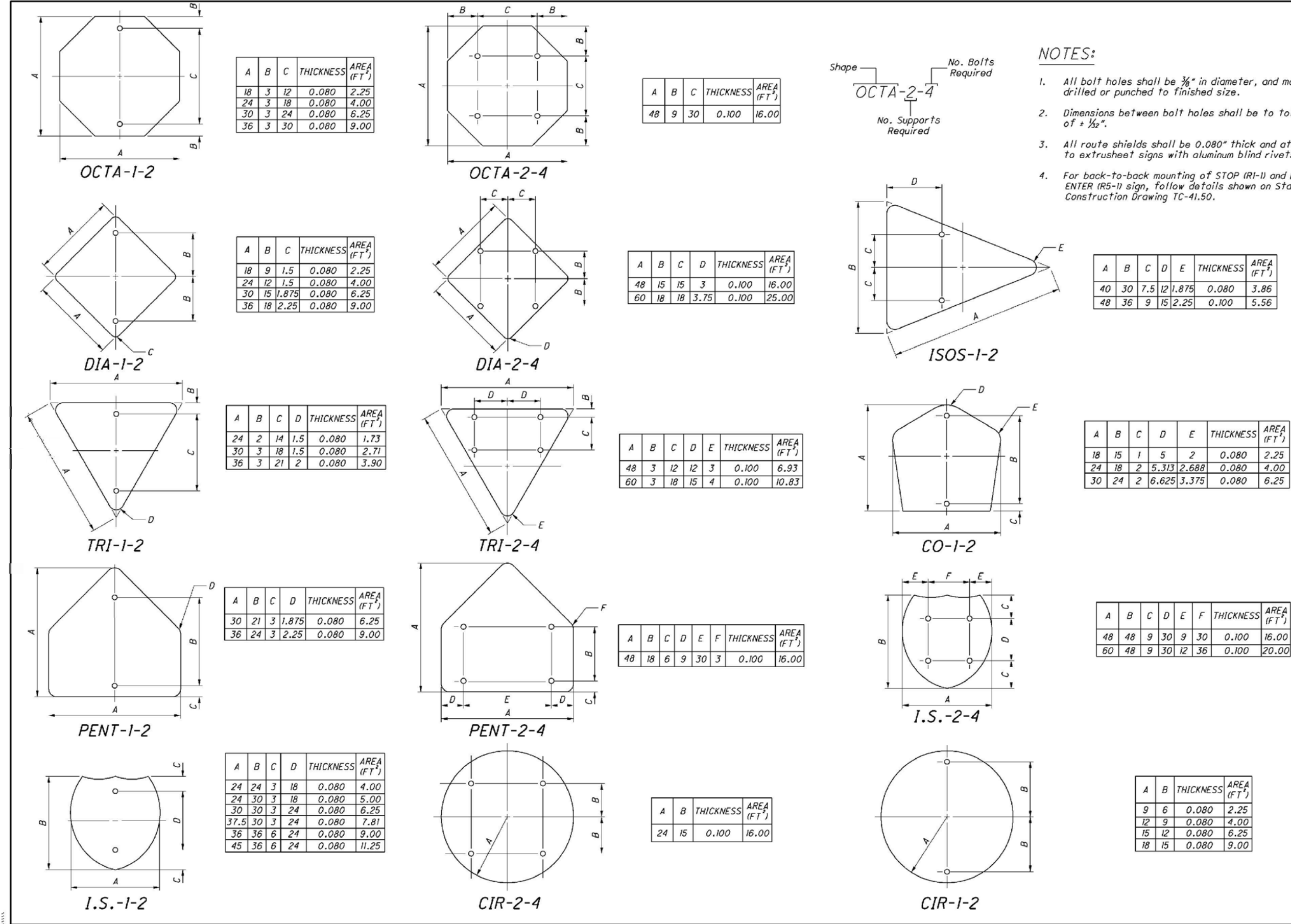
THIS DRAWING REPLACES TC-41.50 DATED 01-18-2011. DESIGNER: JAMES YOUNG. CHECKER: H. SUITER. OFFICE OF ROADWAY ENGINEERING. DATE: 10-18-2013.



NOTES:

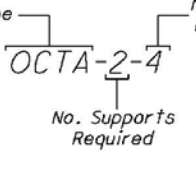
1. See Standard Construction Drawing TC-DI-41.20 for details on yielding supports.
2. All signs shall be placed 90° to the roadway, except as described in notes 3 and 4 below.
3. Install chevron alignment and one-direction large arrow signs on the outside of a turn or curve in line with and of approximately 90° to approaching traffic flow.
4. Install parking signs with arrows at an angle of not less than 30° nor more than 45° with the line of traffic flow.
5. Install chevron alignment signs of a minimum mounting height of 4' above the near edge of the traveled way.
6. Install object markers of a minimum mounting height of 4' above the near edge of the traveled way for obstructions 8' or less from the edge of shoulder or curb. Install object markers of a minimum mounting height of 4' above the ground for obstructions more than 8' from the edge of the shoulder or curb.
7. Install signs with a minimum lateral offset of 1' from the face of curb where sidewalk width is limited or where existing poles are close to the curb.
8. On conventional roads where it is impractical to locate a sign with the lateral offsets shown, install signs with a minimum lateral offset of 2'.
9. See SCDs TC-52.10 and TC-52.20 for dimensions between supports.

THIS DRAWING REPLACES TC-42.20 DATED 01-18-2011. DESIGNER: JAMES YOUNG. CHECKER: H. SUITER. OFFICE OF ROADWAY ENGINEERING. DATE: 10-18-2013.

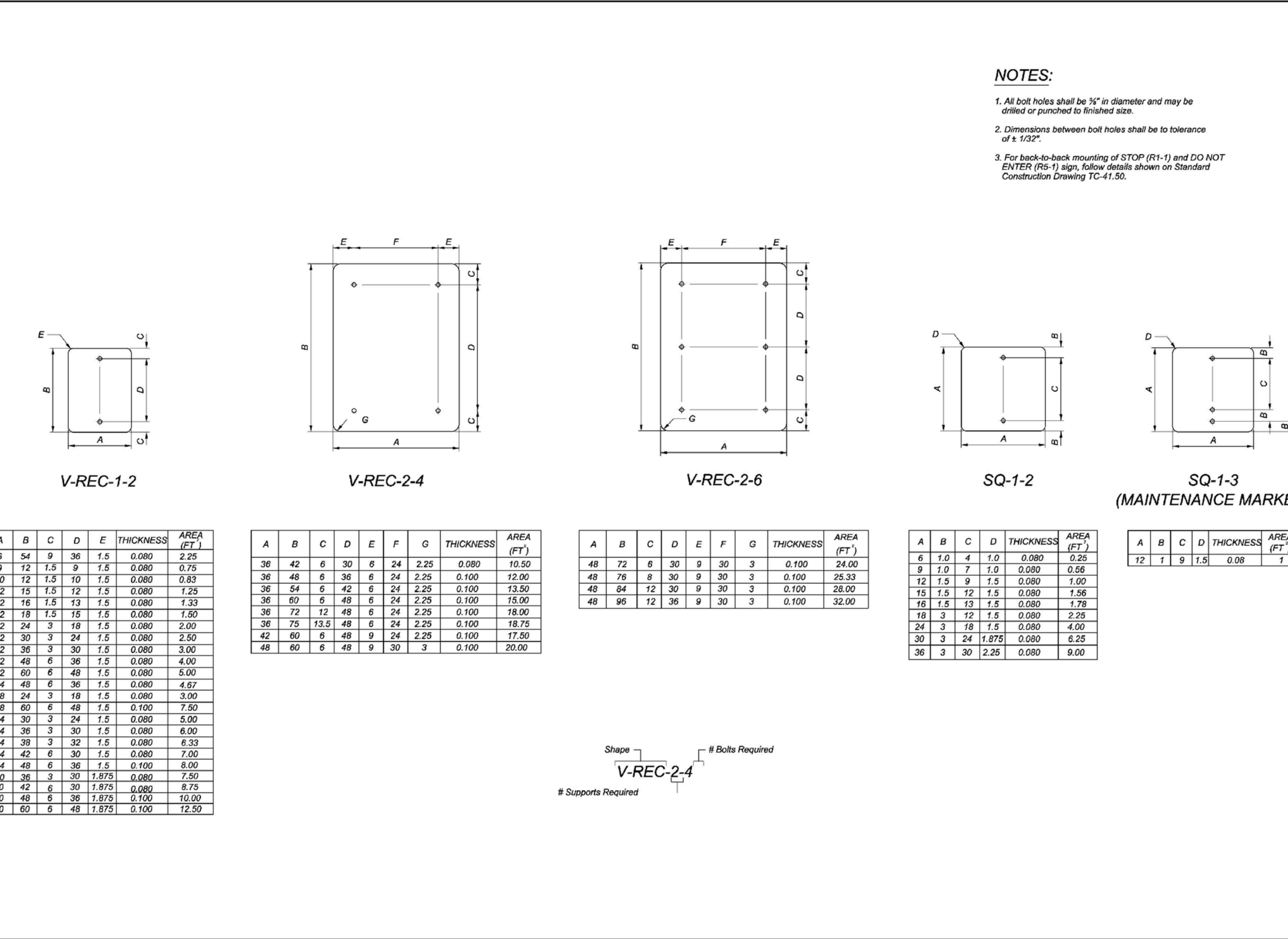


NOTES:

1. All bolt holes shall be 3/16" in diameter, and may be drilled or punched to finished size.
2. Dimensions between bolt holes shall be to tolerance of $\pm 1/32$ ".
3. All route shields shall be 0.080" thick and attached to extruded signs with aluminum blind rivets.
4. For back-to-back mounting of STOP (R1-1) and DO NOT ENTER (R5-1) signs, follow details shown on Standard Construction Drawing TC-41.50.



THIS DRAWING REPLACES TC-52.10 DATED 01-18-2011. DESIGNER: JAMES YOUNG. CHECKER: H. SUITER. OFFICE OF ROADWAY ENGINEERING. DATE: 10-18-2013.



NOTES:

1. All bolt holes shall be 3/16" in diameter and may be drilled or punched to finished size.
2. Dimensions between bolt holes shall be to tolerance of $\pm 1/32$ ".
3. For back-to-back mounting of STOP (R1-1) and DO NOT ENTER (R5-1) signs, follow details shown on Standard Construction Drawing TC-41.50.

THIS DRAWING REPLACES TC-52.10 DATED 01-18-2011. DESIGNER: BRENTON BOGARD. CHECKER: SOLESON. OFFICE OF ROADWAY ENGINEERING. DATE: 10-18-2013.

APPENDIX B - AGENCY COORDINATION AND CONSULTATION

- **USFWS Section 7 Request for Technical Assistance Response**
- **ODNR Environmental Review Response**
- **Ohio EPA Permit to Install Approval**
- **Ohio History Connection Concurrence Letter**

From: [Ohio, FW3](#)
To: [Nicholas Viau](#)
Cc: nathan.reardon@dnr.state.oh.us; [Parsons, Kate](#)
Subject: [External] Buckeye Water District, Old Fredericktown Road Waterline Extension, Columbiana County, Ohio
Date: Tuesday, March 2, 2021 11:30:29 AM
Attachments: [pastedimagebase640.png](#)
[pastedimagebase641.png](#)



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



TAILS# 03E15000-2021-TA-0896

Dear Mr. Viau,

The U.S Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered Indiana bat (*Myotis sodalis*) and threatened northern long-eared bat (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees =3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees =3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees =3 inches dbh cannot be avoided, we recommend removal of any trees =3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), incidental take of

Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus it is important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrice Ashfield". The signature is fluid and cursive, with a large initial "P" and "A".

Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW



Ohio Department of Natural Resources

MIKE DeWINE, GOVERNOR

MARY MERTZ, DIRECTOR

Office of Real Estate
John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

April 30, 2021

Nick Viau
Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212

Re: 21-0257; Old Fredericktown Rd Waterline Extension Phase 2B

Project: involves the extension of 11,580 feet of waterline including approximately 11,580 feet of 8" waterline including the necessary appurtenances, valves, hydrants, and water services in addition to approximately 2,300 feet of 2" cul-de-sac waterline extensions.

Location: The proposed project is located in St. Clair Township, Columbiana County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following records at or within a one-mile radius of the project area:

Allegheny-vine (*Adlumia fungosa*), E
Common oak fern (*Gymnocarpium dryopteris*), T
Wavy-rayed lampmussel (*Lampsilis fasciola*), SC
Creek heelsplitter (*Lasmigona compressa*), SC
Kidneyshell (*Ptychobranthus fasciolaris*), SC
Cerulean warbler (*Setophaga cerulea*), SC
Blue-headed vireo (*Vireo solitarius*), SI
Beaverkettle Farms, Jackman Vodrey & Vodrey Easements – ODNR Scenic Rivers Program
Little Beaver Creek State Scenic River
Little Beaver Creek State Park – ODNR Division of Parks & Watercraft

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; U = state status under review; X = presumed extirpated in Ohio; FE = federal endangered, and FT = federal threatened.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The entire state of Ohio is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species, the northern long-eared bat (*Myotis septentrionalis*), a state endangered and federally threatened species, the little brown bat (*Myotis lucifugus*), a state endangered species, and the tricolored bat (*Perimyotis subflavus*), a state endangered species. During the spring and summer (April 1 through September 30), these species of bats predominately roost in trees behind loose, exfoliating bark, in crevices and cavities, or in the leaves. However, these species are also dependent on the forest structure surrounding roost trees. If trees are present within the project area, and trees must be cut, the DOW recommends cutting only occur from October 1 through March 31, conserving trees with loose, shaggy bark and/or crevices, holes, or cavities, as well as trees with DBH ≥ 20 if possible. If trees are present within the project area, and trees must be cut during the summer months, the DOW recommends a mist net survey or acoustic survey be conducted from June 1 through August 15, prior to any cutting. Mist net and acoustic surveys should be conducted in accordance with the most recent version of the “OHIO DIVISION OF WILDLIFE GUIDANCE FOR BAT SURVEYS AND TREE CLEARING”. <https://ohiodnr.gov/static/documents/wildlife/wildlife-management/Bat+Survey+Guidelines.pdf>

If state listed bats are documented, DOW recommends cutting only occur from October 1 through March 31, however, limited summer tree cutting may be acceptable after consultation with DOW (contact Sarah Stankavich, sarah.stankavich@dnr.state.oh.us).

The DOW also recommends that a desktop habitat assessment, followed by a field assessment if needed, is conducted to determine if there are potential hibernaculum(a) present within the project area. Information about how to conduct habitat assessments can be found in the current USFWS “Range-wide Indiana Bat Survey Guidelines.” If a habitat assessment finds that potential hibernacula are present within 0.25 miles of the project area, please send this information to Sarah Stankavich, sarah.stankavich@dnr.state.oh.us for project recommendations. If a potential or known hibernaculum is found, the DOW recommends a 0.25-mile tree cutting and subsurface disturbance buffer around the hibernaculum entrance, however, limited summer or winter tree cutting may be acceptable after consultation with DOW. If no tree cutting or subsurface impacts to a hibernaculum are proposed, this project is not likely to impact these species.

The project is within the range of the following listed mussel species:

The project is within the range of the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact these species.

The project is within the range of the gilt darter (*Percina evides*), a state endangered fish, the American eel (*Anguilla rostrata*), a state threatened fish, the Tippecanoe darter (*Etheostoma tippecanoe*), a state threatened fish, the channel darter (*Percina copelandi*), a state threatened fish, and the river darter (*Percina shumardi*), a state threatened fish. The DOW recommends no in-water work in perennial streams from March 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact these or other aquatic species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location, the type of habitat within the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact this species.

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the least bittern (*Ixobrychus exilis*), a state threatened bird. This secretive marsh species prefers dense emergent wetlands with thick stands of cattails, sedges, sawgrass or other semiaquatic vegetation interspersed with woody vegetation and open water. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 through July 31. If this type of habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus hudsonis*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 through July 31. If this habitat will not be impacted, this project is not likely to impact this species.

The project is within the range of the sandhill crane (*Grus canadensis*), a state threatened species. Sandhill cranes are primarily a wetland-dependent species. On their wintering grounds, they will utilize agricultural fields; however, they roost in shallow, standing water or moist bottomlands. On breeding grounds they require a rather large tract of wet meadow, shallow marsh, or bog for nesting. If grassland, prairie, or wetland habitat will be impacted, construction

should be avoided in this habitat during the species' nesting period of April 1 through August 31. If this habitat will not be impacted, this project is not likely to have an impact on this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at Sarah.Tebbe@dnr.ohio.gov if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator (Acting)



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

July 10, 2019

RE: Buckeye Water District - Ohio River
Plan
Approval
Classification: Detail Plans
Drinking Water Program
Columbiana County
PWSID: OH1502911
Package Number: 1288559

Buckeye Water District
1925 Clark Avenue
P.O. Box 105
Wellsville, Ohio 43968

Subject: Application No. 1288559-WS; Detail Plans of proposed Old Fredericktown Road Waterline Extension Phase 2; Plans Received From Dallis Dawson & Associates April 22, 2019; additional information received through June 3, 2019.

Ladies and Gentlemen:

The Ohio Environmental Protection Agency has reviewed the enclosed plans submitted pursuant to Ohio Revised Code Sections 6109.07 et. seq., or accepted the certification of plan review by an authorized professional engineer pursuant to a contract therefore. These plans are approved subject to the condition of compliance with all applicable laws, rules, regulations, and standards. The applicant is responsible for obtaining all other necessary approvals, waivers or releases required by state, federal or local law prior to implementing this plan. Further, all construction must be supervised by a registered engineer, if required by law, or expert qualified in such work.

The enclosed report and project summary sheet contain a description of the facilities approved which may include information regarding approved operating rates, capacities, and requirements, and is incorporated herein.

This approval shall become void five years from the date of this letter unless the facilities are constructed as proposed by that date. By accepting this approval, the applicant acknowledges that this deadline shall not be considered or construed as extending or having any effect whatsoever on any compliance schedule or deadline set forth in any administrative or court order issued to or binding upon the applicant, and the applicant shall abide by such compliance schedules or deadlines to avoid the initiation of additional legal action by the Ohio Environmental Protection Agency.

This approval shall apply only to those water supply facilities shown on the plans cited above. Any waste handling facilities shown on these plans must have a separate waste handling approval.

Lead solder and flux that exceeds 0.2 percent lead content and any pipe or pipe fitting that exceeds a 0.25 percent lead content shall not be used in the installation of the proposed facilities.

The owner shall provide for the proper maintenance and operation of the water supply and distribution system.

Necessary measures shall be taken to ensure that there will be no cross connections between the public water supply and any private water supply. The local health department shall be notified of any private water wells which will no longer be used as sources of potable water and which should be abandoned.

The supplier of water shall ensure that no person shall install or maintain a water service connection where a booster pump has been installed, unless an approved method is in place and operational to maintain a minimum suction pressure in accordance with Ohio Administrative Code Rule 3745-95-07.

The owner shall contact the appropriate district of the U.S. Army Corps of Engineers regarding each stream or wetland crossing proposed as part of this project. If a 404 permit is determined to be necessary by the Corps of Engineers, the owner shall acquire a Section 404 Permit and 401 Water Quality Certification, before impacting any waters of the state as a part of this project.

Any well, well point, pit, or other device installed for the purpose of lowering the ground water level to facilitate construction of this project shall be properly abandoned in accordance with the provisions of Rule 3745-9-10 of the Ohio Administrative Code or in accordance with the provisions of this plan or as directed by the director of the Ohio Environmental Protection Agency or his representative. In addition, a well sealing report shall be filed with the Ohio Department of Natural Resources, Division of Water, within 30 days of completion, in accordance with Section 1521.01 of the Ohio Revised Code.

Any person installing any well, well point, pit, or other device used for the purpose of removing ground water from an aquifer shall complete and file a Well Log and Drilling Report form with the Ohio Department of Natural Resources, Division of Water, within 30 days of the well completion in accordance with the Ohio Revised Code, Section 1521.01 and 1521.05. In addition, any such facility that has a capacity to withdraw waters of the state in an amount greater than 100,000 gallons per day from all sources shall be registered by the owner with the Chief of the Division of Water, Ohio Department of Natural Resources, within three months after the facility is completed in accordance with Section 1521.16 of the Ohio Revised Code. For copies of the necessary well log, drilling report, or registration forms, please contact:

Division of Water
Ohio Department of Natural Resources
Fountain Square
Columbus, OH 43224-1387
(614) 265-6717

Air Pollution Control Requirements: Fugitive dust generated by this water line project shall be controlled as specified in OAC 3745-17-08(B).

A National Pollutant Discharge Elimination System (NPDES) permit will be required if the construction project results in a disturbance greater than or equal to one acre. As a requirement of the permit, a Storm Water Pollution Prevention Plan (SWPPP) must be developed before submitting the Notice of Intent (NOI) for coverage under the permit. The NOI must be submitted 45 days prior to beginning construction. To obtain the application form and relevant information, please contact Ohio EPA's stormwater coordinator at (330) 963-1200.

The proposed facility may be constructed only in accordance with plans approved by the director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the agency. Any deviation from the approved plans or the above conditions may lead to sanctions and penalties provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

If a Water Supply Revolving Loan Account (WSRLA) loan is desired, it will be necessary to comply with the requirements of Ohio Revised Code 6109.22. If compliance with WSRLA requirements necessitates any revisions to the plans as herein approved, a resubmittal and approval of the plans will be required before construction.

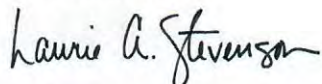
Should there be any questions regarding the requirements, meaning, or interpretation of any of the above which we may clarify, please contact the Division of Drinking and Ground Waters, Northeast District Office, Ohio Environmental Protection Agency.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Treasurer of the State of Ohio", which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
30 East Broad Street, 4th Floor
Columbus, OH 43215

Ohio EPA has developed a customer service survey to get feedback from regulated entities that have contacted us for regulatory assistance, or worked with the Agency to obtain a permit, license or other authorization. Ohio EPA's goal is to provide our customers with the best possible customer service, and your feedback is important to us in meeting this goal. Please take a few minutes to complete this survey and share your experience with us at www.epa.ohio.gov/survey.aspx.

Sincerely,



Laurie A. Stevenson
Director

cc: Columbiana County Health Department
Dallis Dawson & Associates
Patricia K. Vanah, P.E., Supervisor-DDAGW/NEDO

**REPORT ON DETAILED PLANS OF PROPOSED OLD FREDERICKTOWN ROAD
WATERLINE EXTENSION – PHASE 2 PROJECT IN COLUMBIANA COUNTY FOR
BUCKEYE WATER DISTRICT PUBLIC WATER SYSTEM
PWS ID. NO. OH1502911 / PLAN APPLICATION #1288559**

On April 22, 2019, detail plans of proposed water main extensions were received at the Northeast District Office of the Ohio EPA. Additional information was received through June 3, 2019. The plans were submitted by Dallis Dawson & Associates and approved by Al DeAngelis, District Manager for Buckeye Water District.

WATER MAINS

The following water mains are proposed and will be constructed in accordance with all Ohio Administrative Code requirements and all AWWA standards, including pressure testing and disinfection. Lengths listed below are approximate.

<u>Location</u>	<u>Diameter (Inches)</u>	<u>Length (Feet)</u>	<u>Location Reference</u>
Old Fredericktown Road	8	6,900	Extending northward from Ruby Drive
Woodland Drive	8	1,810	Extending west from Old Fredericktown Road to cul-de-sac.
Woodland Drive cul-de-sac	2	305	Continuing from 8-inch pipe to loop cul-de-sac.
South Park Circle	8	4,625	Extending west from Old Fredericktown Road, turning east and closing back on self.
Ivan Court	8	115	Extending north from South Park Circle to cul-de-sac.
Ivan Court cul-de-sac	2	515	Continuing from 8-inch pipe to loop cul-de-sac.
Ingles Drive	8	980	Extending north from South Park Circle, intersecting South Park Circle to North Park Circle.
Ingles Drive	8	460	Extending north from North Park Circle to Lantz Court.
North Park Circle	8	2,045	Extending west from Old Fredericktown Road to Parkview Drive/Lantz Court.
Lantz Court	8	860	Extending east from North Park Circle/Parkview Drive.
Lantz Court cul-de-sac	2	480	Continuing from 8-inch pipe to loop cul-de-sac.
Parkview Drive	8	270	Extending west from North Park Circle/Lantz Court to cul-de-sac.
Parkview Drive cul-de-sac	2	370	Continuing from 8-inch pipe to loop cul-de-sac.
Indy Court	8	340	Extending north from North Park Circle to cul-de-sac.
Indy Court cul-de-sac	2	455	Continuing from 8-inch pipe to loop cul-de-sac.

ESTIMATED COST


The estimated cost of this project is \$1,950,000.00.

It is recommended that the plans be approved subject to the usual and the following special conditions.

SPECIAL CONDITIONS

A variance from the Recommended Standards of Water Works (Ten States Standards) Section 8.8.2 a - Parallel Installation will be granted where less than 10 feet of horizontal separation is provided between the existing and proposed sewer and the proposed water main at the following locations:

Location	Storm Sewer
Woodland Drive	STA. 408+75 to STA 414+75
Woodland Drive	STA. 417+00 to STA 419+50
South Park Circle	STA. 501+00 to STA 505+80
South Park Circle	STA. 507+90 to STA 509+75
South Park Circle	STA. 512+25 to STA 519+50
South Park Circle	STA. 612+50 to STA 614+50
North Park Circle	STA. 807+00 to STA 812+00
North Park Circle	STA. 817+25 to STA 818+00
Lantz Court	STA. 822+75 to STA 825+80
Lantz Court	STA. 826+75 to STA 831+25
Ingles Drive	STA. 900+25 to STA 904+25
Parkview Drive	STA. 1203+00 to STA 1204+25


Deborah Nicholas, P.E.
Environmental Specialist
Division of Drinking and Ground Waters



John R. Kasich, Governor
 Mary Taylor, Lt. Governor
 Craig W. Butler, Director

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 APR 22 2019
OHIO EPA NEDO

**PROJECT SUMMARY SHEET FOR PLAN REVIEW OF
 PROPOSED WATERLINE EXTENSIONS**

Water System Name Buckeye Water District

Project Title (same as listed on water supply data sheet): Old Fredericktown Road Waterline
 Extension – Phase 2

The following is a summary of the proposed waterline:

PIPE MATERIAL	DIAMETER (INCHES)	LENGTH (FEET)	LOCATION	APPLICABLE STANDARDS*	CLASS	PRESSURE RATING
PVC	8"	18,526 FT.	all main line locations	AWWA C900	DR 14	305 PSI
PE	2"	2,299 FT.	around all cul-de-sacs	AWWA C901, ASTM D2737	DR 9	250 PSI

*Material and installation, JUSTIFY IF NOT AN AWWA STANDARD (See policy ENG-08-002)

1. Will all pipe, fittings, valves and fire hydrants conform to the latest standards issued by AWWA and/or NSF? Yes No
2. Will all packing and jointing materials used for pipe joints conform to the requirements of AWWA? Yes No
3. If in an area of groundwater contaminated by organic compounds,
 - a. are the pipe and joint materials such that they do not allow penetration of the organic compounds? Yes No
 - b. are all portions of the system, including pipe, joint materials, hydrant leads and service connections, of non-permeable materials? Yes No

4. Will all waterlines be pressure tested and tested for leakage in accordance with applicable AWWA Standards? Yes No
- a. Test to be performed by Contractor
- b. Test to be supervised by Resident Engineer and Buckeye Water District
5. Is a continuous and uniform bedding provided in the trench for all buried pipe? Yes No
6. Are all tees, bends, plugs, and hydrants provided with reaction blocking, tie rods, or joints designed to prevent movement? Yes No
7. Will all waterlines be disinfected in accordance with AWWA Standard C651? Yes No
- a. Disinfection to be performed by Contractor
- b. Disinfection to be supervised by Resident Engineer and Buckeye Water District
- c. Microbiological samples to be analyzed at Independent Testing Lab
8. Is the system designed to maintain a minimum pressure of 20 psi at ground level at all points in the system under all conditions of flow? Yes No
9. Will the normal working pressure in the system be not less than 35 psi? (TSS 8.2.1 recommends 60 – 80 psi) Yes No
10. Is the system designed to provide fire protection? Yes No
- a. The design fire flow will be 630 gpm minimum at 114 psi pressure.
- b. What is the maximum spacing of the hydrants? 600 feet with Country Estates and Frederick Heights subdivisions; 1,000-1,100 feet along Old Fredericktown Road
- c. Will hydrant drains be plugged? Yes No
- d. Is the minimum size of all waterlines at least six inches? Yes No
(around cul-de-sacs; waterline is looped with 2" conduit to connect services)
11. Will a backflow prevention program be implemented or followed to prevent cross connections with unapproved sources? Yes No

12. Are there any master meters to be installed as part of this project? Yes No

NOTE: If the answer above is yes, contact your Ohio EPA district office to determine if the entity being served by a master meter is an exempt public water system.

13. Is at least four feet of cover provided to protect the waterline from freezing? Minimum cover 4 feet. Yes No

14. What is the maximum spacing between shutoff valves? Varies 550'-1600' along Old Fred. Rd.; 1,800' w/in Country Estates subdivision; every intersection w/in Frederick Heights subdivision (each intersection and 800 feet maximum recommended, 500 feet in commercial areas)

15. Have the number of dead end mains been minimized? Yes No

16. Where dead end mains occur, has a means of flushing the main been provided? (2.5 fpm minimum) Yes No

17. Will all waterlines have at least 10 feet horizontal separation (edge to edge) from sanitary and storm sewers? (See justification) Yes No

18. Will all waterlines which cross sanitary and storm sewers have a minimum vertical separation (outside to outside) of 18 inches? Yes No

19. Will a reliable means to detect leakage at surface water crossings wider than 15 feet be provided? (Not applicable) Yes No

20. Will a minimum cover of five feet be provided over the water crossing pipe? (Not applicable) Yes No

21. Will piping at water crossing have flexible watertight joints? (Not applicable) Yes No

22. Are air relief valves provided (attach summary sheet)? Yes No
Note: Hydrants will be used as air relief valves; see plan sheets for locations

Provide a justification for any of the above questions which are answered "no".

10 c.) Hydrants will be backfilled with #57 washed river gravel to allow for the drainage of the hydrant weep holes.

12.) Master meter vaults will not be necessary.

17.) There are no existing sanitary sewers along the length of the project. Due to the existing topographical constraints, existing right of way constraints, and existing underground telephone/electric/cable utility facilities, there are some locations within the Country Estates and Frederick heights subdivisions that the proposed waterline facilities will be less than (10) feet from existing drainage conduits and corresponding yard drains. The existing drainage conduits and corresponding yard drains are shallow and were installed in some locations by various property owners in order to eliminate the previous roadway ditches that existed. The proposed waterline facilities will be installed approximately (4) feet out-to-out from the existing drainage conduits. The following are the locations:

Country Estates subdivision: (Sta. 408+75 to Sta. 414+75) and (Sta. 417+00 to 419+50).

Frederick Heights subdivision: (Sta. 501+00 to Sta. 505+80); (Sta. 507+90 to Sta. 509+75); (Sta. 512+25 to Sta. 519+50); (Sta. 612+50 to Sta. 614+50); (Sta. 807+00 to Sta. 812+00); (Sta. 817+25 to Sta. 818+00); (Sta. 822+75 to Sta. 825+80); (Sta. 826+75 to Sta. 831+25); (Sta. 900+25 to Sta. 904+25); (Sta. 1203+00 to Sta. 1204+25).

A variance is being requested for installing the proposed waterline facilities with less than (10) of horizontal separation from the existing drainage conduit and corresponding yard drain facilities in the aforementioned locations. The alternative would be to install the proposed waterline facilities entirely within the existing roadway pavement and/or within permanent easements that would need to be acquired. Installing the proposed waterline facilities within the existing roadway pavement would significantly increase construction costs and would significantly add to future maintenance costs, and/or if permanent easements would need to be acquired, would significantly increase project costs.

19.), 20.), and 21.) There are no surface water crossings for this project.

Name: Jon F. Blair, Jr., P.E., Dallis Dawson & Associates Date: April 17, 2019



In reply refer to:
2021-COL-51571

June 14, 2021

Michelle R. Zulauf, M.A., RPA
District Archaeologist & Tribal Liaison
Department of the Army
Pittsburgh District, Corps of Engineers
1000 Liberty Avenue
Pittsburgh, PA 15222-4186
Email: michelle.r.zulauf@usace.army.mil

RE: Section 106 Review-Old Fredericktown Road Waterline Extension Project, Saint Clair Township, Columbiana County, Ohio.

Dear Ms. Zulauf:

This letter is in response to the receipt on May 17, 2021 of *Phase I Archaeological Survey for the Proposed Approximately 2.53 Mile (4.07 km) Long Old Fredericktown Road Waterline Extension Project in Saint Clair Township, Columbiana County, Ohio* by Lawhon & Associates, Inc. (L&A). We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]). The United States Army Corps of Engineers, Pittsburgh District (Corps) is the lead federal agency for the undertaking.

The archaeological survey involved a literature review, shovel probe excavations, and visual inspection of the entire 2.53-mile waterline corridor, which is defined as the direct Area of Potential Effect (APE) for the undertaking. Due to the nature of the project, buried waterline and associated amenities, no above-ground resources will be impacted by the project. According to the literature review, no National Register of Historic Places properties or districts, previously documented historic-era structures/buildings, or previously documented archaeological sites are located within or adjacent to the APE. A total of 124 shovel probes were excavated within the APE, which identified disturbed soils. Therefore, after careful review of the report, our office concurs with L&A that the project, as proposed, will have no effect on historic properties. No further archaeological investigations are warranted for the APE. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as required by 36 CFR § 800.13. If you have any questions concerning this review, please contact me via email at sbiehl@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink that reads "Stephen M. Biehl".

Stephen M. Biehl, Project Reviews Coordinator (archaeology)
Resource Protection and Review
State Historic Preservation Office

RPR Serial No. 1088625

"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."

APPENDIX C - PUBLIC INVOLVEMENT

- **Buckeye Water District Board of Trustees Meeting Minutes**
- **Morning Journal News Articles**

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF BOARD OF TRUSTEES**

APRIL 15, 2010

The Regular Meeting of the Board of Trustees was held April 15, 2010 at 9:00 a.m. at the Village of Wellsville Council Chambers located at 1200 Main St., Wellsville, Ohio.

The meeting was called to order by Michael Ryan and roll call was taken. The meeting was attended by the following:

TRUSTEES

John E. Call
Cal Carney
David Lloyd
R. Gene McGaffick
Timothy O'Hara
Michael G. Ryan
Richard Williams

ABSENT

Charles R. Bibbee
Robert K. Wines

GUESTS

JoAnn Bobby-Gilbert, Review/Morning Journal
J. Mike Lynn, Wellsville
Gary Williams, Madison Twp. Trustee
Roger Walker, Madison Twp. Trustee
Jim Sabatini, St. Clair Twp. Trustee
Columbiana Cnty. Commissioner Penny Traina

DISTRICT REPRESENTATIVES

Al DeAngelis
Fred Emmerling
Sara Crouch
Tracy Allen

WAIVER OF NOTICE

It was moved by R. Gene McGaffick and seconded by Timothy O'Hara to waive the notice of the meeting and any defect thereof, which motion passed unanimously.

**APPROVAL OF THE MINUTES OF MARCH 18, 2010 REGULAR MEETING AND
APRIL 2, 2010 SPECIAL MEETING OF THE BOARD OF TRUSTEES**

Upon motion of Cal Carney seconded by R. Gene McGaffick it was moved that the minutes of the March 18, 2010 Regular Meeting and April 2, 2010 Special Meeting of the Board of Trustees be approved as presented, which motion passed unanimously.

PUBLIC COMMENTS

Columbiana County Commissioner Penny Traina addressed the Board to thank them for all the dedication to the County and for support on economic development and county projects. Commissioner Traina also asked the Board for their support in the renewal of the 1% sales tax. The sales tax contributes approximately 8 million dollars or 44% of the general fund budget. The election is May 4, 2010.

PUBLIC COMMENTS

Gary Williams, Madison Township Trustee commented that he appreciates the Buckeye Water District for extending water into Madison Township, but he would like assistance in putting the road backs back into shape due to the Salineville Waterline Project. The following roads will be chip and sealed soon and they need restored before this can be completed; Osbourne, Crews, Opal, James and Forbes Roads. The Madison Township Trustees will be coming to the Board for financial support to repair these roads.

RESOLUTIONS

None

TREASURER'S REPORT

R. Gene McGaffick presented the Treasurer's Report as of March 31, 2010 which is attached to these minutes. Timothy O'Hara made a motion to accept the Treasurers Report as presented; David Lloyd seconded the motion, which passed unanimously.

OPERATIONS REPORT

R. Gene McGaffick presented the Operations Report, a copy of which is attached to these minutes. There were no questions regarding the contents of the report.

COMMITTEE REPORTS

Service/Property Appraisal Committee –No report

Budget/Audit Committee –Nothing further

Personnel Committee –Timothy O'Hara reported that May 11, 2010 at 9:00 a.m. a Public Meeting has been scheduled for Mark Allison for the part-time position of Distribution Coordinator of the Buckeye Water District.

Liaison Committee –No report

Engineering Committee –R. Gene McGaffick reported the Committee met to discuss the Salineville Waterline Projects and the new Frederick Heights Project.

R. Gene McGaffick asked the Board for permission to proceed for Engineering Services for the Frederick Heights Line Project. David Lloyd made a motion to proceed with Engineering Services; R.Gene McGaffick seconded the motion, which passed unanimously.

James Sabatini, St. Clair Township Trustee thanked the Board for the Frederick Heights Waterline Project. The area has approximately 200 homes with enough signatures to warrant bringing water service to the area. The majority of the residents are in support with a few opposed. Mr. Sabatini stated that he is a big supporter of infrastructure and growth to the area. Quoting what is a short term inconvenience has long term gains. Mr. Sabatini asked the Board to keep St. Clair Township posted on the project.

Bidding and Contracting Out Committee – No report

Insurance Committee –No report

Computer Study & Purchase Committee –No report

Rate Study Committee-No report

Litigation Committee-No report

DISTRICT MANAGER'S REPORT

Al DeAngelis presented the District Managers Report, a copy of which is included with these minutes. Jack Call asked the Board what the status is with the old Wellsville Water Treatment Plant and Reservoir and how the Board goes about giving it back to Wellsville. Fred Emmerling stated that the previous agreement that Buckeye Water District had with the Village of Wellsville stated that a clause in the deed states that the property would revert back to the Village when the Water Treatment Plant is no longer utilized and the lines would be decommissioned. Mr. Emmerling stated that he would set up a meeting with the Village to discuss reverting the property back to the Village of Wellsville and a resolution will be prepared for next months meeting.

PROJECT REPORT

Al DeAngelis presented the Project Report, a copy of which is included with these minutes. Mr. DeAngelis reported that the work on the Salineville Waterline Phase-B project is coming down the the hill of Brick Hill Road. Two residences in that area will need to feed off the hydrants until the new lines are installed and they can be retapped. The Contractor hasn't bored across the creek yet.

OLD BUSINESS

None

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

MAY 17, 2018

The Regular Meeting of the Board of Trustees was held Thursday, May 17, 2018 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

Trustees
Don Harris
David Dawson
Michael G. Ryan
Mike Lynn
Richard Williams
Robert K. Wines
Roy Dray
Timothy O'Hara
George Kosko

Absentees

Guests
JoAnn Bobby Morning Journal
Jim Sabatini St Clair Twp.
Mike DiLoreto Contractor

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Gregg Stanley Office Manager
Tiffany Chetock Fiscal Officer

WAIVER OF NOTICE:

It is moved by Robert Wines, and seconded by Mike Lynn to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the April 19, 2018 Regular Meeting of the Board of Trustees.

Discussion:

A move by David Dawson, and seconded by George Kosko to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD- Representing St. Clair Twp. Trustees, Jim Sabatini approached

the board with a petition with 136 signatures of 156 residences from Old Fredericktown Rd and put a committee together with interest in connecting to Buckeye Water District water. Mr. Sabatini explained there is a great demand for the water line project on Old Fredericktown road to be completed. Residence in that area has low flow with good water quality or high flow with poor water quality. He feels completing this project would help not only the current residence but also future development.

Mike DiLorato also addressed the Board with the same concern saying one of the older developments were built by standards that put the septic and the well too close together . Some of these residents are wanting to sell their property but can't due to their property not being large enough to either relocate their well or septic to meet current septic requirements. Being able to tap to Buckeye Water is their only option. Mike said he has been in touch with Ohio State Representative Ginter about funding options and he responded that there might be some funding available to assist with the project.

President Mike Ryan said the Buckeye Water District wants to continue this project but funding is the issue. Any help that is offered would be appreciated. Our Engineering Committee will meet on this again and notify you when.

72 hour Waiver

Michael Lynn made a motion to waive the 72-Hour Notice required by Resolution 14-2002. Tim O'Hara seconded the motion; a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Roy Dray	YES	Timothy O'Hara	YES
Richard Williams	YES	George Kosko	YES
Robert K. Wines	YES	David Dawson	YES
Michael G. Ryan	YES	Michael Lynn	YES
Don Harris	YES		

Said motion passed by a vote of 9 affirmative and -0-negative votes

RESOLUTIONS

RESOLUTION 3-2018 AUTHORIZING THE DISTRICT TO ENTER INTO A SOIL PLACEMENT AGREEMENT WITH SOUTHFIELD ENERGY, LLC.

It was moved by George Kosko and seconded by Don Harris that the forgoing Resolution 3-2018 be adopted this 17th day of May, 2018. Roll call vote taken as follow:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Roy Dray	YES	Timothy O'Hara	YES
Richard Williams	YES	George Kosko	YES
Robert K. Wines	YES	David Dawson	YES

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

JULY 19, 2018

The Regular Meeting of the Board of Trustees was held Thursday, July 19, 2018 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

Trustees
Don Harris
David Dawson
Michael G. Ryan
Mike Lynn
Richard Williams
Robert K. Wines
Roy Dray
Timothy O'Hara
George Kosko

Absentees

Guests
Jim Sabatini

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Tiffany Chetock Fiscal Officer

WAIVER OF NOTICE:

It is moved by Mike Lynn, and seconded by George Kosko to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the June 21, 2018 Regular Meeting of the Board of Trustees.

Discussion:

A move by Tim O'Hara, and seconded by Don Harris to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD- Jim Sabatini addressed the Board with an update on the Fredericktown Rd Project. He asked if there was a form supplied by Buckeye Water District that can be presented to customers showing their firm commitment of getting on Buckeye Water if the

line is put in. There are 134 households interested. Jim is providing an aerial map of locations that are committed to signing up and see if there are any voids to see if we need to approach those homes for tap in. Al DeAngelis said he met with Jim Sabatini and discussed if there was a way to sign customers up and have a fee if they did not activate there service. This would be for customers who get a tap but delay turning on until their well goes bad. This would help cover repayment of loans taken to complete the project. Jim said he wanted to create a working relationship with Buckeye Water District. He said Representative Tim Ginter want any information we have to assist him with helping secure funding for this project. Mike Ryan said he was told by the USDA any on future projects any taps made would have a minimum bill if the water was turned on or not. Jim said there was an informational meeting he is attending August 6 at the CCCTC for community leaders with the USDA on funding options available. He also said there are some paving projects that are being scheduled in St Clair twp. and want to try coordinating these projects not to conflict. Another St. Clair twp. resident said his well is 275 feet deep and his neighbor has just lost water. He is afraid he is going to lose his again.

EXECUTIVE SESSION-NONE

RESOLUTIONS-NONE

BID OPENING -NONE

TREASURERS REPORT-

Robert Wines reported the Finance Committee met Wednesday July 18th and reports that revenue is down and finances are up we need to increase or budget by \$72,250.00. He recommends the financial report be accepted as presented.

See attached Treasurer's Report.

A move by Mike Lynn, and seconded by George Kosko, that the Treasurer's Report be approved as submitted.

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	YES	Timothy O'Hara	YES
Rick Williams	YES	Don Harris	YES
David Dawson	YES	Robert K. Wines	YES
Mike Lynn	YES	Roy Dray	YES
George Kosko	YES		

Motion approves unanimously.

OPERATIONS REPORT

A move by Don Harris, and seconded by Tim O'Hara, that the Operation Report be

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

SEPTEMBER 20, 2018

The Regular Meeting of the Board of Trustees was held Thursday, September 20, 2018 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

<u>Trustees</u>	<u>Absentees</u>	<u>Guests</u>
Don Harris		
David Dawson		
Michael G. Ryan		
Mike Lynn		
Richard Williams		
Robert K. Wines		
Roy Dray		
Timothy O'Hara		
George Kosko		

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Gregg Stanley Office Manager
Tiffany Chetock Fiscal Officer

WAIVER OF NOTICE:

It is moved by Mike Lynn, and seconded by George Kosko to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the August 16, 2018 Regular Meeting of the Board of Trustees.
Review of the minutes of the September 4, 2018 Special Meeting of the Board of Trustees.

Discussion:

A move by Tim O'Hara, and seconded by Don Harris to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD- Jim Sabatini addressed the board first thanking Atty. Emmerling for his work on the Tap Agreements for the Fredericktown water line project. He said the Pete Metrovich Center for Thursday September 27, 2018 at 6:30 pm for our community meeting on this project. As of today we have passed out flyers on the tap in information and have a lot of people wanting to sign up.

72 HOUR WAIVER

Mike Lynn made a motion to waive the 72 hour notice required by Resolution 14-2002. Don Harris seconded the motion, roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	YES	Timothy O'Hara	YES
Rick Williams	YES	Don Harris	YES
David Dawson	YES	Robert K. Wines	YES
Mike Lynn	YES	Roy Dray	YES
George Kosko	YES		

Said motion passed by a vote of 9 affirmative and 0 negative votes.

RESOLUTIONS 13-2018 NORFOLK SOUTHERN RAILROAD AGREEMENT

It was moved by David Dawson and seconded by George Kosko that the foregoing Resolution 13-2018 be adopted this 20th day of September, 2018. Roll call vote was taken as follows:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	YES	Timothy O'Hara	YES
Rick Williams	YES	Don Harris	YES
David Dawson	YES	Robert K. Wines	YES
Mike Lynn	YES	Roy Dray	YES
George Kosko	YES		

Said motion passed by a vote of 9 affirmative and 0 negative votes

BID OPENING-NONE

TREASURERS REPORT-Robert Wines reported the Audit was complete and there were some compliance findings but no items for recovery. The Auditors accepted a corrective action plan and also praised Fiscal Officer Chetock on her work.

There are several items that need to be addressed as follows:

Request approval to create Pump station and Reservoir Upgrade, discharge Line, Easement and Permitting and Contingency Funds as well as opening accounts to coincide with these funds.

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

OCTOBER 18, 2018

The Regular Meeting of the Board of Trustees was held Thursday, October 18, 2018 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

<u>Trustees</u>	<u>Absentees</u>	<u>Guests</u>
Don Harris		
David Dawson		
Michael G. Ryan		
Mike Lynn		
Richard Williams		
Robert K. Wines		
Roy Dray		
Timothy O'Hara		
George Kosko		

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Gregg Stanley Office Manager
Tiffany Chetock Fiscal Officer

WAIVER OF NOTICE:

It is moved by Mike Lynn, and seconded by David Dawson to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the September 20, 2018 Regular Meeting of the Board of Trustees.
Review of the minutes of the September 27, 2018 Special Meeting of the Board of Trustees.

Discussion:

A move by Tim O'Hara, and seconded by Rick Williams to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD- Jim Sabatini addressed the Board with an update on the progress of the Fredericktown Road Water line project. He said there were 60 signed up to date.

EXECUTIVE SESSION

Mike Lynn made a motion to enter into Executive Session with the Districts Attorney and the Board about disputes involving the Board that are subject to pending Litigation. George Kosko seconded the motion, and a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	YES	Timothy O’Hara	YES
Rick Williams	YES	Don Harris	YES
David Dawson	YES	Robert K. Wines	YES
Mike Lynn	YES	Roy Dray	YES
George Kosko	YES		

Robert Wines made a motion to return from Executive Session. Mike Lynn seconded the motion, and a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	YES	Timothy O’Hara	YES
Rick Williams	YES	Don Harris	YES
David Dawson	YES	Robert K. Wines	YES
Mike Lynn	YES	Roy Dray	YES
George Kosko	YES		

RESOLUTIONS NONE

BID OPENING NONE

TREASURERS REPORT

Robert Wines reported that the Finance Committee met Tuesday October 16, 2018 and recommends the Treasures Report be accepted as presented.

See attached Treasurer’s Report.

A move by Don Harris, and seconded by Rick Williams, that the Treasurer's Report be approved as submitted.

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	YES	Timothy O’Hara	YES
Rick Williams	YES	Don Harris	YES
David Dawson	YES	Robert K. Wines	YES
Mike Lynn	YES	Roy Dray	YES
George Kosko	YES		

Motion approves unanimously.

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

DECEMBER 20, 2018

The Regular Meeting of the Board of Trustees was held Thursday, December 20, 2018 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

Trustees
Don Harris
David Dawson
Michael G. Ryan
Mike Lynn
Richard Williams
Robert K. Wines
Roy Dray
Timothy O'Hara
George Kosko

Absentees

Guests

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Tiffany Chetock Fiscal Officer

WAIVER OF NOTICE:

It is moved by Mike Lynn, and seconded by Don Harris to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the November 15, 2018 Regular Meeting of the Board of Trustees.

Discussion:

A move by George Kosko, and seconded by Tim O'Hara to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD- Jim Sabitini addressed the board and said they had several more people sign up for water hook up on the Fredericktown Rd. waterline project.

Mike Ryan said the Board is prepared to make a commitment to the Fredericktown rd. water line project.

Robert Wines motioned the Buckeye Water District move forward with the Fredericktown Rd. Water Line Extension Project after engineering and Funding is complete.
Second George Kosko. Roll Call Vote:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan		Timothy O'Hara	
Rick Williams		Don Harris	
David Dawson		Robert K. Wines	
Mike Lynn		Roy Dray	
George Kosko			

Passed unanimously.

EXECUTIVE SESSION

Mike Lynn made a motion to enter into Executive Session in pursuant of O R C 121.22 I Consider Employment and compensation of public employment. David Dawson seconded the motion, and a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	yes	Timothy O'Hara	yes
Rick Williams	yes	Don Harris	yes
David Dawson	yes	Robert K. Wines	yes
Mike Lynn	yes	Roy Dray	yes
George Kosko	yes		

Tim O'Hara made a motion to return from Executive Session. Don Harris seconded the motion, and a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	yes	Timothy O'Hara	yes
Rick Williams	yes	Don Harris	yes
David Dawson	yes	Robert K. Wines	yes
Mike Lynn	yes	Roy Dray	yes
George Kosko	yes		

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

JANUARY 17, 2019

The Regular Meeting of the Board of Trustees was held Thursday, January 17, 2019 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

<u>Trustees</u>	<u>Absentees</u>	<u>Guests</u>
Don Harris		
David Dawson		
Michael G. Ryan		
Mike Lynn		
Richard Williams	ABSENT	
Robert K. Wines		
Roy Dray		
Timothy O'Hara		
George Kosko		

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Tiffany Chetock Fiscal Officer
Gregg Stanley Office Manager

WAIVER OF NOTICE:

It is moved by David Dawson, and seconded by Roy Dray to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

NOMINATIONS-ELECTION-OATH OF OFFICERS

President Mike Ryan opened the floor to Nominations and elections to fill expiring positions of President, Vice President and Secretary/ Treasurer.

Tim O'Hara nominated Mike Ryan for President, second by Don Harris. With no other nominations for President, Tim O'Hara moved nominations be closed, second by George Kosko.

Mike Ryan nominated Tim O'Hara for Vice President, second by George Kosko.

With no other nominations for Vice President, President Mike Ryan closed nominations.

Mike Ryan nominated Robert Wines for the position of Secretary Treasurer, second by Don Harris.

Tim O'Hara moved the nominations be closed, second by George Kosko.

Don Harris moved to cast a unanimous affirmative ballot for all positions, second by Mike Lynn.

Roll Call:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	YES	Timothy O'Hara	YES
Rick Williams	ABSENT	Don Harris	YES
David Dawson	YES	Robert K. Wines	YES
Mike Lynn	YES	Roy Dray	YES
George Kosko	YES		

Motion approves unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the December 20, 2018 Regular Meeting of the Board of Trustees.

Discussion:

A move by Robert Wines, and seconded by Mike Lynn to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD-President Mike Ryan addressed several Fredericktown Rd residents about the progress of the Fredericktown Water line project, informing them some engineering that has to be done and Al DeAngelis is working on the funding. The Board is hopes to start this project by April or May. The Board wants to complete this project as soon as possible to avoid bad weather.

EXECUTIVE SESSION

David Dawson made a motion to enter into Executive Session for Property Litigation. George Kosko seconded the motion, and a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	YES	Timothy O'Hara	YES
Rick Williams	ABSENT	Don Harris	YES

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

OCTOBER 17, 2019

The Regular Meeting of the Board of Trustees was held Thursday, October 17, 2019 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

Trustees
Don Harris
David Dawson
Michael G. Ryan
Mike Lynn
Richard Williams
Robert K. Wines
Roy Dray
Timothy O'Hara
George Kosko

Absentees

Guests
Julie Riedol Review

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fiscal Officer Tiffany Chetock
Fred Emmerling District Atty.
Gregg Stanley Office Manager

WAIVER OF NOTICE:

It is moved by Mike Lynn, and seconded by David Dawson to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the September 19, 2019 Regular Meeting of the Board of Trustees.
Review of the minutes of the October 8 , 2019 Special Meeting of the Board of Trustees.

Discussion:

A move by Mike Lynn, and seconded by David Dawson to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD-Jim Sabitini addressed the Board thanking them for all the work that was done to make the Fredericktown Road Waterline project a success.

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

May 21, 2020

The Regular Meeting of the Board of Trustees was held Thursday, May 21, 2020 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

<u>Trustees</u>	<u>Absentees</u>	<u>Guests</u>
Don Harris		
David Dawson		
Michael G. Ryan		
Richard Williams		
Robert K. Wines		
Roy Dray		
Timothy O'Hara		
George Kosko		
Dean Devitt		

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Gregg Stanley Office Manager

WAIVER OF NOTICE:

It is moved by George Kosko, and seconded by Don Harris to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the April 16, 2020 Regular Meeting of the Board of Trustees.
Review of the minutes of the May 5, 2020 Special Meeting of the Board of Trustees.

Discussion:

A move by Don Harris, and seconded by Tim O'Hara to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD- Mayor Murray said the Wellsville council approved the

appointment of Dean Devitt as a Trustee to the Buckeye Water District Board of Trustees. She also asked for a part of Broadway be repaired from a water break.

St.Clair twp. Residents addressed the board about the Fredericktown Rd project start date. President Ryan said funds are being released slower because of the CV19 outbreak.

EXECUTIVE SESSION-NONE

RESOLUTIONS

72 hour Waiver

David Dawson made a motion to waive the 72-Hour Notice required by Resolution 14-2002. Don Harris seconded the motion; a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Roy Dray	YES	Timothy O’Hara	YES
Richard Williams	YES	George Kosko	YES
Robert K. Wines	YES	David Dawson	YES
Michael G. Ryan	YES	Dean Devitt	YES
Don Harris	YES		

Said motion passed by a vote of 9 affirmative and -0- negative votes

**BUCKEYE WATER DISTRICT
RESOLUTION 13-2020**

RESOLUTION 13-2020 DESIGNATING ADDITIONAL SIGNATORY ON THE ACCOUNTS OF THE BUCKEYE WATER DISTRICT HELD AT HUNTINGTON BANK AND CF BANK, AND AUTHORIZING THE DISTRICT TO EXECUTE SUCH DOCUMENTS AS MAY BE NECESSARY.

It was moved by Don Harris and seconded by Richard Williams that the foregoing Resolution 13-2020 be adopted this 20th day of May, 2020. Roll call vote was taken as follow:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Roy Dray	YES	Timothy O’Hara	YES
Richard Williams	YES	George Kosko	YES
Robert K. Wines	YES	David Dawson	YES
Michael G. Ryan	YES	Dean Devitt	YES
Don Harris	YES		

**BUCKEYE WATER DISTRICT
MEETING
REGULAR MEETING OF THE BOARD OF TRUSTEES**

June 18, 2020

The Regular Meeting of the Board of Trustees was held Thursday, June 18, 2020 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

<u>Trustees</u>	<u>Absentees</u>	<u>Guests</u>
Don Harris		
David Dawson		
Michael G. Ryan		
Richard Williams		
Robert K. Wines		
Roy Dray		
Timothy O'Hara		
George Kosko		
Dean Devitt		

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Gregg Stanley Office Manager

WAIVER OF NOTICE:

It is moved by George Kosko, and seconded by Don Harris to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the May 21, 2020 Regular Meeting of the Board of Trustees.
Review of the minutes of the May 20, 2020 Special Meeting of the Board of Trustees.

Discussion:

A move by Tim O'Hara, and seconded by Robert Wines to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD-Mike DiLoreto addressed board asking the progress of the Fredericktown Rd Waterline project. President Mike Ryan said with the COVID 19 pandemic all the offices are short staffed, and to appropriate the money that we applied for the Representatives need to be in session. Until then there is nothing we can do.

72 HOUR WAIVER

Robert K. Wines made a motion to waive the 72-hour notice required by Resolution 14-2002. Timothy O’Hara seconded the motion: a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	yes	Timothy O’Hara	yes
Rick Williams	yes	Don Harris	yes
David Dawson	yes	Robert K. Wines	yes
Roy Dray	yes	George Kosko	yes
Dean Devitt	yes		

Said motion passed by a vote of 9 affirmative and 0 negative votes.

RESOLUTIONS – 14-2020 AUTHORIZING THE DISTRICT TO PURCHASE AND INSTALL SECURITY CAMERAS.

It was moved by George Kosko and seconded by Richard Williams that the foregoing Resolution 14-2020 be adopted this 18th day of June , 2020. Roll call vote was taken as follows:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	yes	Timothy O’Hara	yes
Rick Williams	yes	Don Harris	yes
David Dawson	yes	Robert K. Wines	yes
Roy Dray	yes	George Kosko	yes
Dean Devitt	yes		

Said motion passed by a vote of 9 affirmative and 0 negative votes.

BID OPENING - NONE

TREASURERS REPORT-

Robert Wines reported the Finance Committee met 6/17/2020 and recommends the Treasurers Report be accepted as presented and any adjustments to the budget determined by the Finance Committee.

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

July 16, 2020

The Regular Meeting of the Board of Trustees was held Thursday, July 16, 2020 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

<u>Trustees</u>	<u>Absentees</u>	<u>Guests</u>
Don Harris		
David Dawson		
Michael G. Ryan		
Richard Williams	Absent	
Robert K. Wines		
Roy Dray		
Timothy O'Hara		
George Kosko		
Dean Devitt		

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.

WAIVER OF NOTICE:

It is moved by George Kosko, and seconded by Robert Wines to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the June 18, 2020 Regular Meeting of the Board of Trustees.
Review of the minutes of the June 23, 2020 Special Meeting of the Board of Trustees.

Discussion:

A move by George Kosko, and seconded by Don Harris to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD- Jim Sabitini representing the Fredericktown Rd Waterline project was asking what the progress of the project. He was informed we are wait for the Government to sign off on the release of funding.

**BUCKEYE WATER DISTRICT
MINUTES
REGULAR MEETING OF THE BOARD OF TRUSTEES**

September 17, 2020

The Regular Meeting of the Board of Trustees was held Thursday, September 17, 2020 at 9:00 A.M. at the Village of Wellsville Council Chambers, 1200 Main St., Wellsville, Ohio.

The meeting was called to order by President Mike Ryan and roll call was taken. Those attending the meeting:

<u>Trustees</u>	<u>Absentees</u>	<u>Guests</u>
Don Harris		
David Dawson	absent	
Michael G. Ryan		
Richard Williams		
Robert K. Wines		
Roy Dray		
Timothy O'Hara		
George Kosko		
Dean Devitt		

DISTRICT REPRESENTATIVES

Al DeAngelis District Manager
Fred Emmerling District Atty.
Gregg Stanley Office Manager

WAIVER OF NOTICE:

It is moved by George Kosko, and seconded by Robert Wines to waive the notice of the meeting and any defect thereof, which motion passes unanimously.

REVIEW MINUTES OF PREVIOUS MEETINGS

Review of the minutes of the August 20, 2020 Regular Meeting of the Board of Trustees.

Discussion:

A move by Don Harris, and seconded by Tim O'Hara to approve the minutes as submitted, which motion passes unanimously.

PUBLIC COMMENT PERIOD-Jim Sabatini from St. Clair Twp. Jim was inquiring he progress

of the Fredericktown Rd project and offered his assistance if needed. He was informed the funding is still on hold. He asked if we have heard anything from OPWC and Jim Sabatini will check with Representative Ginter about that.

EXECUTIVE SESSION

Tim O'Hara made a motion to enter Executive Session, topic Pending Litigation . George Kosko seconded the motion, and a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	yes	Timothy O'Hara	yes
Rick Williams	yes	Don Harris	yes
David Dawson	absent	Robert K. Wines	yes
Roy Dray	yes	George Kosko	yes
Dean Devitt	yes		

Robert Wines made a motion to return from Executive Session. Don Harris seconded the motion, and a roll call vote was taken:

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	yes	Timothy O'Hara	yes
Rick Williams	yes	Don Harris	yes
David Dawson	absent	Robert K. Wines	yes
Roy Dray	yes	George Kosko	yes
Dean Devitt	yes		

RESOLUTIONS NONE

BID OPENING NONE

TREASURERS REPORT

Robert Wines reported the Finance Committee met 9/17/2020 and recommends the Treasurers Report be accepted as presented and any adjustments to the budget determined by the Finance Committee.

See attached Treasurer's Report.

A move by Tim O'Hara, and seconded by Rick Williams, that the Treasurer's Report be approved as submitted.

<u>TRUSTEE</u>	<u>VOTE</u>	<u>TRUSTEE</u>	<u>VOTE</u>
Mike G. Ryan	yes	Timothy O'Hara	yes
Rick Williams	yes	Don Harris	yes

MORNING JOURNAL

Water won't flow into Frederick Heights soon

WELLSVILLE — The Buckeye Water District will open bids on May 23 for the Frederick Heights waterline project, but secondary lines will not be run into the subdivision likely until next summer.

The BWD on Tuesday voted to seek formal bids on the project, with the bids to be opened at 10:30 a.m. May 23.

BWD Director Al DeAngelis said this phase of the project involves extending the trunk waterline on Old Fredericktown Road in St. Clair Township from Ruby Drive to just beyond the two entrances to the Frederick Heights subdivision — a distance of about 1.3 miles.

He said if everything works out as they hope this phase should be completed sometime in September, which is too late in the year to begin work on running secondary lines into the subdivision. Work on that phase will begin next spring.

This trunk line phase of the project is expected to cost about \$800,000, which is being paid for with a loan from the Ohio Environmental Protection Agency. The BWD is seeking grants and loans to cover the estimated \$1 million cost of running secondary waterlines up and down the streets in the subdivisions.



Last spring, a group from Frederick Heights and smaller subdivisions also located on Old Fredericktown Road approached the BWD about extending water service to them because of problems they were having with their wells. The BWD agreed to pursue funding for the project if enough households committed to hooking into the waterline, and at least 90 have agreed so far.

In other action at Tuesday's meeting, the BWD agreed to enter into a two-year contract with MP2 Energy to supply electricity for generation and transmission purposes at a locked-in price, which is expected to save them at least \$20,000 a year. The third component of every electric bill is distribution services, which will still be provided by American Electric Power.

tgiambroni@mojonews.com

MORNING JOURNAL

Two BWD projects approved

WELLSVILLE — Two projects to benefit the electric plant being built north of town were approved Wednesday by the Buckeye Water District.

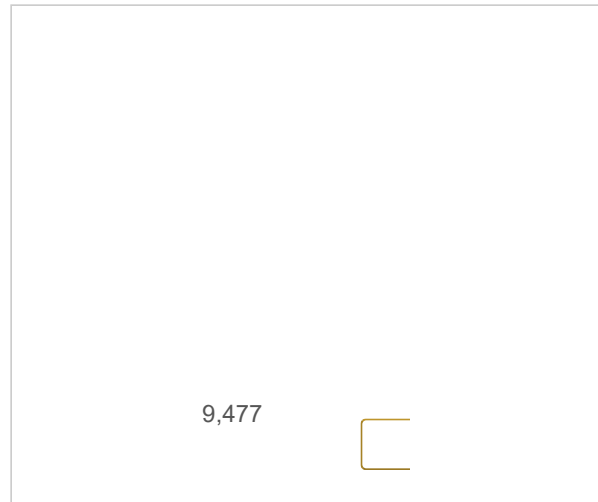
The contract to install a waterline to provide the South Field Energy with drinkable water was awarded to LEB Contracting. Its bid of \$261,777 was the lowest of the six received.

The plant being constructed in Yellow Creek Township will be powered by natural gas and produce enough electricity to supply more than a million homes. The BWD is supplying the water for the plant, with South Field providing the funding.

Besides installing the potable waterline, the BWD is also building an 18 million gallon raw water reservoir next to the reservoir used to provide drinking water to its customers. To get the untreated water from the Ohio

River to the proposed raw water reservoir, the BWD is installing pump stations at the river and at the plant several miles away.

At this week's meeting, board awarded the contract for the pump stations to Total Equipment. The company's bid of \$1.69 million was the lowest of the two received.



The bids for the raw water reservoir have been received and will likely be awarded at the BWD's regular meeting on May 21.

In other news, BWD Director Al DeAngelis said a contractor for phase two of the Old Fredericktown Road waterline project in St. Clair Township cannot be hired until after July 1 because of timetable restrictions that came with some of the government funding received for the project.

The first phase, which was completed last year, involved extending an existing BWD trunk line on Old Fredericktown Road 1.6 miles north to the entrance of the Frederick Heights housing subdivision. The second phase consists of running waterlines into the subdivision.

The entire project will bring municipal water service to an estimated 120 homes.

DeAngelis took a moment to remember board member Mike Lynn of Wellsville, who recently died. DeAngelis said Lynn, who served as Salineville's representative on the board, was a good board member and good friend.

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The Review

Waterline project delay discussed

WELLSVILLE — A St. Clair Township trustee offered his help speeding up efforts to finish the Old Fredericktown Road waterline project this year.

Jim Sabatini attended Thursday's Buckeye Water District board meeting to ask if he could help in getting funding for the project released. This was after the newspaper reported last month release of the funding was being held up because of delays resulting from the coronavirus pandemic.

He said residents have been asking trustees about the delay and what to expect when the project gets underway. *"The funding is there. We know that, and I've tried to explain that to people,"* Sabatini told the board.

The first phase of the project — completed last year — involved extending an existing BWD trunk line 1.6 miles north from Ruby Drive on Old Fredericktown Road to just past the entrance to the Frederick Heights housing subdivision. The second phase, which was to be undertaken this year, called for secondary lines to be run into the housing subdivision, but that has not occurred.

To fund the second phase, the BWD obtained a \$900,000-plus grant from the U.S. Army Corps of Engineers to help pay the estimated \$1.5 million cost, along with \$250,000 through the Appalachian Regional Commission and \$300,000 from the Ohio Water Development Authority (OWDA).

BWD Director Al DeAngelis said they are waiting for the Army Corps to sign off on the paperwork releasing the money, which could occur by the

end of the month or early October at the latest. Meanwhile, the state legislature has to act so the the OWDA loan money can be released.

Sabatini said he would contact state Rep. Tim Ginter, R-Salem, and state Sen., Mike Rulli, R-Salem, to see what can be done about speeding things along at the state level.

Board members expressed their frustration with the delay, with board president Mike Ryan, saying. *"I would have liked to have had it done last summer."*

Sabatini said there has been a silver lining to the delay: More property owners are expressing interest in hooking into the waterline. DeAngelis said they have been getting similar inquiries from property owners elsewhere, which he attributes to problems caused by the stress on their wells resulting from this summer's drought.

DeAngelis has said they intend to bid the project this year and begin construction as soon as possible. Sabatini said if the project is delayed much longer he could speak with residents to determine if they favor holding off beginning the project in the spring.

Meanwhile, the St. Clair Township trustees are working with the Columbiana County Engineer's Office to obtain state Issue 2 funding to repave the roads that will be torn up by construction.

MORNING JOURNAL

Frederick Heights work set, but not until spring

WELLSVILLE — Phase two of the Frederick Heights waterline project in St. Clair Township can finally proceed, but work is unlikely to get underway before April 1.

Buckeye Water District director Al DeAngelis reported at Thursday's board meeting the U.S. Army Corps of Engineers finally released the \$917,000 grant it awarded for the \$1.6 million project. The Army Corps was expected to have signed off on the paperwork earlier this year in time for construction to begin in the spring, but the pandemic sent office employees home to work in March, which slowed the bureaucratic process even more.

Officials hoped work could still begin by November or December but that was predicated on receiving the go-ahead from the Army Corps in September, and now it is too late in the year for that to happen.

“It’s always a hard slog with these funding agencies, and with everything else that’s been going it’s been 10 times harder,” said BWD board chairman Mike Ryan, who expects work to take six months.

St. Clair Township trustee Jim Sabatini, who attended the meeting, said he understood and they were just grateful the project had cleared the last hurdle.

“You guys worked hard ... This has been a long time coming,” he said. *“Sometime6s people don’t know all the work that goes into something like this.”*

The first phase of the project, which was completed last year, involved extending an existing BWD trunk line 1.6 miles north on Old Fredericktown Road from Ruby Drive to just past the entrance to the Frederick Heights housing subdivision. This brought water service to about 100 homes. Phase two consists of running secondary lines into the subdivision, where another 100 homeowners are scheduled to hook in.

Sabatini said this is a game-changer for those homeowners who were having problems with their wells.

“This will make a world of difference. There’s been multiple issues with the wells out there. It’s not just supply issues, it’s a water quality issue,”

he said. *“Some people are getting only one or two gallons of water per minute. You can’t run a household on that, not to mention many have iron issues as well and problems with sediment.”*

The Army Corps money was a huge piece of the financial puzzle. In addition to the \$917,000, the BWD has received a \$200,000 federal grant through the Appalachian Regional Commission. The BWD will receive an interest-free loan from the Ohio Public Works Commission to cover the rest, which will be repaid with the \$3,250 tap fee charged property owners.

Unlike municipal sewer service, which is mandatory, property owners have the option of hooking into municipal water service. Sabatini expects more homeowners who initially said no will change their mind once they see work is underway.

In other action at the meeting, DeAngelis reported he has applied for up to \$1 million in federal funding to replace lead water lines in Wellsville. If approved, the BWD would use the money to replace lead waterlines from the street to homes.

He said they chose Wellsville because it has the most lead lines of its customers. *“It’s an older system,”* he explained.

The board also granted 3 percent pay raises for its 15 employees, effective Jan. 1.

tgiambroni@mojonews.com

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