TUNNEL DEMOLITION PLAN - ALUMNI WAY

GENERAL SITE NOTES

1. REFER TO SHEET 1/5 FOR GENERAL NOTES REGARDING TUNNEL LID CONSTRUCTION.
2. REFER TO EXHIBIT "A" DOCUMENT FOR ADDITIONAL INFORMATION REGARDING A PRELIMINARY LOCATION OF UTILITIES TO BE PERFORMED.
3. DURHAM PROVIDES A FINAL TUNNEL LID DESIGN AS REQUIRED TO ADEQUATELY PROTECT THE EXISTING WATER MAINS. DURHAM PROVIDES ALL MANHOLE LOCATION INFORMATION TO THE CONTRACTOR IN WRITING. A FINAL DRAKE PLAN SHALL BE SUBMITTED TO DURHAM PRIOR TO BEGINNING ANY CONSTRUCTION.
4. DRAWING ARE APPROXIMATE ONLY. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EACH UTILITY.

KEYED NOTES

- REMOVE TUNNEL LID/SIDEWALK CONCRETE. SEE STRUCTURAL PLANS FOR VERTICAL LIMITS OF REMOVAL.
- REMOVE CONCRETE APPEARS TO INCLUDE CURB, GUTTER, AND SUBGRADE.
- REMOVE EXISTING LANDSCAPING AS NEEDED TO PERFORM TUNNEL LID REMOVAL AND REPLACE MANHOLE ACCESS IN NEW LOCATION. EXISTING WATER MAINS INSIDE TUNNEL AS A RESULT OF CONSTRUCTION REMOVAL. NOTIFY WSU GROUNDS CREW.
- TUNNEL LID REPAIR.
- ANY IRRIGATION PIPING AND WIRING TO BE REPLACED. WSU GROUNDS CREW.
- REMOVE ASPHALT BETWEEN TUNNEL LID AND CURBING.
- REMOVE ASPHALT PAVEMENT INCLUDING BASE COURSE.
- REMOVE CONCRETE APRON, ROLLED CURB, GUTTER, AND SUBGRADE.
- REMOVE TUNNEL LID/SIDEWALK CONCRETE. SEE STRUCTURAL PLANS FOR VERTICAL LIMITS OF REMOVAL.
- REMOVE CONCRETE APPEARS TO INCLUDE CURB, GUTTER, AND SUBGRADE.
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- REMOVE TUNNEL LID/SIDEWALK CONCRETE. SEE STRUCTURAL PLANS FOR VERTICAL LIMITS OF REMOVAL.
- REMOVE CONCRETE APPEARS TO INCLUDE CURB, GUTTER, AND SUBGRADE.

CONTACTOR SHALL VERIFY THE EXACT LOCATION OF EACH UTILITY.

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- REMOVE CURB AND GUTTER.
- REMOVE ASPHALT PAVEMENT INCLUDING BASE COURSE.
- REMOVE TUNNEL LID/SIDEWALK CONCRETE. SEE STRUCTURAL PLANS FOR VERTICAL LIMITS OF REMOVAL.
- REMOVE CONCRETE APPEARS TO INCLUDE CURB, GUTTER, AND SUBGRADE.
- TUNNEL LID REPAIR.
- ANY IRRIGATION PIPING AND WIRING TO BE REPLACED. WSU GROUNDS CREW.
- REMOVE ASPHALT BETWEEN TUNNEL LID AND CURBING.
- REMOVE PSP CONCRETE.
- REMOVE CURB AND GUTTER.

- PROVISIONAL STAMP:

- DRAWN BY:

- DESIGN BY:

- CIVIL DEMOLITION PLAN

- REMOVE CURB AND GUTTER.
- REMOVE ASPHALT BETWEEN TUNNEL LID AND CURBING.
- REMOVE ASPHALT PAVEMENT INCLUDING BASE COURSE.
- REMOVE CONCRETE APRON, ROLLED CURB, GUTTER, AND SUBGRADE.
GENERAL SITE NOTES

1. REFER TO SHEET 5 A/B FOR GENERAL NOTES REGARDING TUNNEL LID CONSTRUCTION.
2. REFER TO STRUCTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING CONSTRUCTION OF TUNNEL LID AND SIDEWALK.
3. REFER TO SHEET 3 B/C FOR TRAFFIC INFORMATION REGARDING CLOSED LANE OF CONTRIBUTORY STREET.
4. REFER TO SHEET 3 B/C FOR TRAFFIC INFORMATION REGARDING CLOSED LANE OF CONTRIBUTORY STREET.
5. REFER TO SHEET 3 B/C FOR TRAFFIC INFORMATION REGARDING CLOSED LANE OF CONTRIBUTORY STREET.
6. REFER TO SHEET 3 B/C FOR TRAFFIC INFORMATION REGARDING CLOSED LANE OF CONTRIBUTORY STREET.
7. REFER TO SHEET 3 B/C FOR TRAFFIC INFORMATION REGARDING CLOSED LANE OF CONTRIBUTORY STREET.

KEYED NOTES

1. REFER TO DETAIL 4, SHEET C-501 FOR GENERAL NOTES REGARDING TUNNEL LID.
2. REFER TO DETAIL 4, SHEET C-501 FOR GENERAL NOTES REGARDING TUNNEL LID.
3. REFER TO DETAIL 4, SHEET C-501 FOR GENERAL NOTES REGARDING TUNNEL LID.
4. REFER TO DETAIL 4, SHEET C-501 FOR GENERAL NOTES REGARDING TUNNEL LID.
5. REFER TO DETAIL 4, SHEET C-501 FOR GENERAL NOTES REGARDING TUNNEL LID.

GRADING ABBREVIATIONS

A. SOLID LINE = ELEVATION B. LIT规划 = ELEVATION C. CURVES = ELEVATION
**PART 1 - GENERAL**

1. **SUMMARY:**
   - This specification includes general requirements for materials and methods of installation.

2. **SCOPE:**
   - Exterior walls, structural steel, and mechanical and electrical systems.
   - Limits the scope to structural steel, mechanical, and electrical systems.
   - Does not include materials and methods of installation.

3. **METHODS:**
   - Methods of installation may be modified to suit field conditions.
   - All materials shall be new and shall be of the quality specified in this specification.

4. **QUALITY:**
   - Structural, mechanical, and electrical systems.

5. **SUBCONTRACTOR:**
   - Electrical, mechanical, and structural systems.

6. **REFERENCES:**
   - NECA 5055 NECA Standard of Installation

7. **EXECUTION:**
   - Execution of the work shall be in accordance with the requirements of this specification.

8. **NOTES:**
   - Notes shall be in accordance with the requirements of this specification.

9. **ADDENDUM:**
   - Addenda shall be in accordance with the requirements of this specification.

10. **LEGAL:**
    - Legal requirements shall be in accordance with the requirements of this specification.

**PART 2 - MATERIALS & EQUIPMENT**

1. **GENERAL:**
   - Materials and equipment shall conform to the requirements of this specification.

2. **ELECTRICAL SPECIFICATIONS:**
   - Electrical conduit shall be 1 1/4" Schedule 40.
   - All conduit shall be of the same type.

3. **COMMUNICATIONS:**
   - All conduits shall be of the same type.
   - All conduits shall be installed in accordance with the requirements of this specification.

4. **GENERAL NOTES:**
   - Notes shall be in accordance with the requirements of this specification.

5. **ELECTRICAL CONTRACTOR:**
   - The electrical subcontractor shall be responsible for the installation of the electrical systems.

6. **PROVISIONS:**
   - Provisions shall be in accordance with the requirements of this specification.

7. **ASSUMPTIONS:**
   - Assumptions shall be in accordance with the requirements of this specification.

8. **CONSTRUCTION:**
   - Construction shall be in accordance with the requirements of this specification.

9. **MATERIALS:**
   - Materials shall be in accordance with the requirements of this specification.

10. **METHODS:**
    - Methods of installation shall be in accordance with the requirements of this specification.

11. **QUALITY:**
     - Quality of installation shall be in accordance with the requirements of this specification.

12. **SUBCONTRACTOR:**
     - Subcontractor shall be responsible for the installation of the electrical systems.

13. **REFERENCES:**
     - References shall be in accordance with the requirements of this specification.

14. **EXECUTION:**
     - Execution of the work shall be in accordance with the requirements of this specification.

15. **NOTES:**
     - Notes shall be in accordance with the requirements of this specification.

16. **ADDENDUM:**
     - Addenda shall be in accordance with the requirements of this specification.

17. **LEGAL:**
     - Legal requirements shall be in accordance with the requirements of this specification.

18. **SUBMISSION:**
     - Submission shall be in accordance with the requirements of this specification.

19. **REPORT:**
     - Report shall be in accordance with the requirements of this specification.

20. **CONSIDERATIONS:**
     - Considerations shall be in accordance with the requirements of this specification.

21. **GENERAL NOTES:**
     - Notes shall be in accordance with the requirements of this specification.

22. **ELECTRICAL CONTRACTOR:**
     - The electrical contractor shall be responsible for the installation of the electrical systems.

23. **PROVISIONS:**
     - Provisions shall be in accordance with the requirements of this specification.

24. **ASSUMPTIONS:**
     - Assumptions shall be in accordance with the requirements of this specification.

25. **CONSTRUCTION:**
     - Construction shall be in accordance with the requirements of this specification.

26. **MATERIALS:**
     - Materials shall be in accordance with the requirements of this specification.

27. **METHODS:**
     - Methods of installation shall be in accordance with the requirements of this specification.

28. **QUALITY:**
     - Quality of installation shall be in accordance with the requirements of this specification.

29. **SUBCONTRACTOR:**
     - Subcontractor shall be responsible for the installation of the electrical systems.

30. **REFERENCES:**
     - References shall be in accordance with the requirements of this specification.

31. **EXECUTION:**
     - Execution of the work shall be in accordance with the requirements of this specification.

32. **NOTES:**
     - Notes shall be in accordance with the requirements of this specification.

33. **ADDENDUM:**
     - Addenda shall be in accordance with the requirements of this specification.

34. **LEGAL:**
     - Legal requirements shall be in accordance with the requirements of this specification.

35. **SUBMISSION:**
     - Submission shall be in accordance with the requirements of this specification.

36. **REPORT:**
     - Report shall be in accordance with the requirements of this specification.

37. **CONSIDERATIONS:**
     - Considerations shall be in accordance with the requirements of this specification.

38. **GENERAL NOTES:**
     - Notes shall be in accordance with the requirements of this specification.
1. All work shall comply with the current edition of the NEC as adopted by the State of Washington or the local authority having jurisdiction.

2. Equipment shown on drawing shall be uninstalled/reinstalled or relocated on wall allowing room to remove existing tunnel lid. All equipment shall be returned to original location after new tunnel lid is installed.

3. The relocation of cables and conductors shall be done or improved manner using approved means such as hydraulic lifts. Cables and conductors shall not interfere with one another or obstruct construction. Any conflicts may be resolved by removing one of the cables or conductors. A cable barrier shall not obstruct a reinforcement bar, a conduit, a joint, or a pull box. All conduit obstacles in the way of tunnel demolition shall be removed.

4. Protect existing facilities in tunnel during demolition and construction. Conductors relocated for construction are to be made safe in their temporary location and remain energized during construction. Contractor must work to minimize, and schedule with WSU Maintenance, all outages during relocation activities. WSU High Voltage Electricians must be present during any re-energizing of cables and conductors.

5. Existing wiring and other electrical hardware hung from the tunnel walls and top slab will be temporarily lowered 18" below wall cut location by the contractor to accommodate construction. This does not apply to steam and condensate piping, valves and fittings.

6. Any cables, conductors, conduits or junction boxes found to be abandoned during work shall be coordinated with WSU Maintenance and removed.

GENERAL NOTES

1. Conduit/cables exit tunnel at lower elevation and do not conflict with construction activities.

2. Lower or remove conduits as required to facilitate tunnel lid replacement. Maintain circuit continuity during construction. Replace and reinstall any removed conduits and conductors once new lid is in place.

3. Existing conduits are lawful to remain furnished but the termination box is to be relocated per WSU Maintenance.

4. Existing conduit rigid to lumping into sheet metal sections during tunnel demolition.

5. Single exit conduit intended to feeding lighting circuit and installed in the tunnel section. Project exits are detailed in Feeder/Location of Fixtures drawings.

6. Light switches to be relocated and shown as per location.
RELOCATED MANHOLE

1. All work shall comply with the current revision of the rules adopted by the State of Washington or the local authority having jurisdiction.

2. Equipment or conduits shall be constructed in accordance with National Electrical Code (NEC) and the local codes in effect.

3. The installation of conduit shall be done in accordance with the National Electric Code (NEC). Conduit shall be of the proper size and type for the wires it will contain.

4. Photographs of the tunnel shall be taken at the start and finish of the work to ensure compliance with the specifications.

5. ACCESS TO WALLS AND TOP SLAB WILL BE TEMPORARILY LOWERED 18" BELOW WALL CUT OR REPLACED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO THE CONTRACTOR.

6. Any cables, conduits, conductors, or junction boxes that are to be removed or replaced shall be coordinated with WSU maintenance and structural engineering.

ELECTRICAL TUNNEL SITE PLAN - ALUMNI WAY

WALLS AND WALLS TOP SLAB WILL BE TEMPORARILY LOWERED 18" BELOW WALL CUT OR REPLACED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO THE CONTRACTOR.

APPLY TO STEAM AND CONDENSATE PIPING, VALVES AND FITTINGS.

WALLS AND TOP SLAB WILL BE TEMPORARILY LOWERED 18" BELOW WALL CUT OR REPLACED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO THE CONTRACTOR.

NEW LIGHTING SHALL UTILIZE 1" CONDUIT, 1#10G, AND #10 COPPER CONDUCTORS AS STEAM PIPES SO HEAD SPACE IS MAINTAINED DOWN THE CENTER OF THE TUNNEL.

EXISTING WIRING AND OTHER ELECTRICAL HARDWARE HUNG FROM THE TUNNEL WALLS AND TOP SLAB WILL BE TEMPORARILY LOWERED 18" BELOW WALL CUT OR REPLACED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO THE CONTRACTOR.

ABANDONED DURING WORK SHALL BE COORDINATED WITH WSU MAINTENANCE AND STRUCTURAL ENGINEERING.

PROVIDE TUNNEL LIGHTING TO REPLACE EXISTING TUNNEL LIGHTING REMOVED FOR NEW LIGHTING SHALL UTILIZE 1" CONDUIT, 1#10G, AND #10 COPPER CONDUCTORS AS STEAM PIPES SO HEAD SPACE IS MAINTAINED DOWN THE CENTER OF THE TUNNEL.

EXISTING WIRING AND OTHER ELECTRICAL HARDWARE HUNG FROM THE TUNNEL WALLS AND TOP SLAB WILL BE TEMPORARILY LOWERED 18" BELOW WALL CUT OR REPLACED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO THE CONTRACTOR.

EXISTING WIRING AND OTHER ELECTRICAL HARDWARE HUNG FROM THE TUNNEL WALLS AND TOP SLAB WILL BE TEMPORARILY LOWERED 18" BELOW WALL CUT OR REPLACED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO THE CONTRACTOR.

ABANDONED DURING WORK SHALL BE COORDINATED WITH WSU MAINTENANCE AND STRUCTURAL ENGINEERING.

PROVIDE TUNNEL LIGHTING TO REPLACE EXISTING TUNNEL LIGHTING REMOVED FOR NEW LIGHTING SHALL UTILIZE 1" CONDUIT, 1#10G, AND #10 COPPER CONDUCTORS AS STEAM PIPES SO HEAD SPACE IS MAINTAINED DOWN THE CENTER OF THE TUNNEL.

EXISTING WIRING AND OTHER ELECTRICAL HARDWARE HUNG FROM THE TUNNEL WALLS AND TOP SLAB WILL BE TEMPORARILY LOWERED 18" BELOW WALL CUT OR REPLACED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO THE CONTRACTOR.
1. Typical Electrical Conductors Along Wall and Ceiling. Temporarily lower or remove conduits as required 18” below wall cut location. To facilitate lid replacement. Abandoned or not used conduits shall be removed. Coordinate removal with Owner. Maintain circuit continuity during construction and reinstall conduits at original location after new tunnel lid is complete.

2. Existing Splice Box EA10-JB-A to remain for base bid. For alternate bid, box to be un-mounted and lowered during lid replacement, protect box and re-install at original location once new lid is complete.

WSU 2021-22
UTILITY TUNNELS: REPAIR TUNNEL LID AT ALUMNI WAY AND GRIMES WAY
1. Leave a minimum of 18" of clear space for operation of saw. Verify exact clearance required for sawing from general contractor.

2. Leave a minimum of 18" of clear space to allow worker room to install new tunnel lid. Coordinate exact required clearance with general contractor.

3. Temporarily relocated cables and conductors shown in detail 1. Contractor to provide supports for relocated cables as required.

4. Relocate as required.

5. Install new lights in line with steam pipe structural support to limit "head knocker" obstructions. All new lighting conduits shall be surface mounted.