METHODSTUDIO

BID ADDENDUM NO. 2

Date: November 10, 2020

PROJECT: BYU Idaho Engineering Technology Center (ETC) Rexburg, ID

ARCHITECT: Method Studio, Inc. 160 West 2nd South, Ste. 201 Rexburg, Idaho 83440 p.208-701-0068

OWNER: BYU Idaho

BYU Idaho Project #: 12005

ARCHITECT'S PROJECT NO.: 20.0220

TO ALL BIDDERS:

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated October 27, 2020. Receipt of this Addendum must be acknowledged to Headwaters Construction and by Headwaters Construction.

Questions / Comments:

1. None

DRAWINGS & SPECIFICATIONS:

Civil:

1. Submittal of civil drawings and specifications. Refer to attached Civil Documents

Architectural:

- 1. Sheet AS101 North sidewalk, curb and drive path has been revised to match civil drawings. See attached civil drawings.
- 2. Sheet AS101 South West sidewalk has been revised to match civil drawings. See attached civil drawings.
- 3. Sheet AS101 Description for chain link fence finishes has been revised.
- 4. Sheet AE111 Updated slab on grade in Rooms 141 to match grading elevation per civil. Civil drawings are included as part of this addendum. See civil drawings.
- 5. Detail D6/AE521 Remove drainage board and waterproofing from the foundation and provide damp proofing in its place.

Structural:

1. None

Mechanical:

2. None

Electrical:

2. None

END OF ADDENDUM TWO



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- 1. USE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, 2017 EDITION.
- 2. MATERIALS: SEE SPECIAL PROVISIONS.

- 3. CHECK ALL DISTANCES AND DATA PRIOR TO THE START OF CONSTRUCTION. IN CASE OF CONFLICT, NOTIFY THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION MAY BE MADE PRIOR TO THE START OF WORK.
- 4. GENERAL LOCATIONS AND SIZES OF UTILITIES ARE SHOWN ON THE PLANS. THEY ARE TO BE USED FOR GENERAL INFORMATION ONLY. NOTIFY THE APPROPRIATE UTILITY COMPANIES WHEN CONSTRUCTION MIGHT INTERFERE WITH NORMAL OPERATION OF ANY UTILITIES AND HAVE THE APPROPRIATE UTILITY COMPANY FIELD-LOCATE ANY UTILITY INSTALLATIONS WHICH MIGHT BE AFFECTED BY CONSTRUCTION PRIOR TO BEGINNING WORK IN THAT AREA. MAINTAIN SERVICE OF EXISTING UTILITIES AND RESTORE ANY UTILITIES DAMAGED DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. CALL IDAHO DIGLINE 800-342-1585 FOR FIELD LOCATES PRIOR TO ANY EXCAVATION.
- 5. SECURE SOURCES FOR DISPOSAL SITES AND ANY ADDITIONAL MATERIALS THAT MAY BE NECESSARY FOR PROPER CONSTRUCTION OF THIS PROJECT.
- 6. MAKE ARRANGEMENTS FOR WATER REQUIRED FOR TESTING, COMPACTION AND DUST CONTROL MEASURES.
- 7. PROVIDE TRAFFIC CONTROL SIGNING IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 8. ANY QUANTITIES SHOWN ARE FOR INFORMATION ONLY. CONTRACTOR MUST VERIFY
- 9. RETAIN AND PROTECT ALL AREAS AND FEATURES NOT SPECIFICALLY CALLED FOR IMPROVEMENT.







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DEMOLITION PLAN Λ 1" = 20FT A

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KEYED NOTES

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1	RETAIN AND PROTECT EXISTING FEATURES, COMPONENTS, AND LANDSCAPING NOT SPECIFICALLY CALLED FOR IMPROVEMENT.
2	REMOVE DESIGNATED CONCRETE RAMPS AND PADS
3	CUT AND REMOVE ASPHALT SURFACE
4	CUT AND REMOVE CONCRETE SURFACE
5	REMOVE CONCRETE CURB
6	REMOVE CONCRETE STAIRS. (WARNING: STEAM TUNNEL BENEATH!)
7	REMOVE AND SALVAGE BUILDING SIGN, REMOVE AND REINSTALL LIGHT POLE
8	CLEAR AND GRUB AREA

ESTIMATED IN-PLACE QUANTITIES (FOR INFORMATION ONLY, CONTRACTOR TO VERIFY)

CLEARING & GRUBBING 85 SY EXCAVATION (INCL ASPHALT 220 CY & CONCRETE)





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KEYED NOTES

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1) TYPE A CURB AND GUTTER

- (2) TYPE B CURB
- (3) 4" CONCRETE PAD
- 4) 6" REINFORCED CONCRETE SIDEWALK, PAD OR CONCRETE REPAIR

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- 5 ASPHALT REPAIR
- (6) 6' CHAINLINK FENCE
- 7) 12' DOUBLE SWING GATE
- 8 4" SEWER SERVICE LINE
- 9 REINSTALL LIGHT POLE
- (10) EXTEND 3 EA. 4" PVC UTILITY SLEEVES

ESTIMATED IN-PLACE QUANTITIES

(FOR INFORMATION ONLY, CONTRACTOR TO VERIFY)

ASPHALT REPAIR, CONSTRUCTION	330 SY
TYPE A CURB AND GUTTER	210 LF
TYPE B CURB	55 LF
4" CONCRETE PAD	25 SY
6" SIDEWALK, CONCRETE PAD	310 SY
6' CHAINLINK FENCE	295 LF
12' DOUBLE SWING GATE	4 EACH
4" SEWER SERVICE LINE	145 LF
REPLACE CONCRETE STAIRS	1 LS
STORM DRAIN IMPROVEMENTS	1 LS
REINSTALL LIGHT POLE	1 EACH
4" PVC UTILITY SLEEVES	30 LF





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 \sim 1-5/8" O.D. SCH 40 GALV TOP RAIL

RECONSTRUCT CONCRETE STAIRS

SPECIFICATIONS FOR CIVIL SITE WORK ENGINEERING TECHNOLOGY CENTER BRIGHAM YOUNG UNIVERSITY – IDAHO

DESCRIPTION AND SCOPE

The civil site work for this project consists of demolishing and removing existing asphalt and concrete interfering with new improvements; constructing new concrete sidewalks, pads, and repairing concrete pavement areas; repairing disturbed asphalt areas and constructing new asphalt surfacing were needed; constructing new curbs and gutter; installing chain-link fencing: installing a 4" sewer service line; constructing storm drain improvements; and replacing an existing concrete stairway to include heating capability.

There are not any alternates for this project.

Winston Dyer, PE of The Dyer Group, LLC (208-390-9700) in Rexburg, is the Engineer of Record for the above-described civil site work – providing engineering design, construction staking of the designed elements, and construction observation of the associated facilities.

GENERAL PROVISIONS

Water for Construction: The University will make water available from existing facilities wherever possible, at no cost to the contractor, provided suitable precautions are taken to prevent cross-connections and possible contamination of the water supply system. Coordinate with University personnel whenever drawing water from University water supplies in order to avoid potential service disruption.

Access and Safety: At all times conduct work so as to insure to the greatest possible degree the uninterrupted convenience and safety of the general public and access to areas adjacent to the work. As appropriate, properly close pedestrian sidewalks and driveway/parking areas during construction – providing appropriate signage, work area closure, and pedestrian detour routes.

Noise Impact: To minimize noise impacts on campus, do not conduct civil site work construction activities between the hours of 10:00 p.m. to 7:00 a.m., unless approved otherwise by the Owner.

Submittals: Furnish shop drawings, equipment or materials catalog cuts, and other similar information to the Engineer for review and approval of all equipment and materials proposed for use on the civil site work prior to beginning construction. Promptly correct and resubmit any submittals deemed unsatisfactory by the Engineer.

Testing: The Owner will furnish certified third party quality control testing necessary to assure the workmanship and materials are in accordance with specified construction requirements as defined later in these Special Provisions. This includes soil materials, compaction, and concrete and asphalt quality. Respond to the tester's direction given through the Engineer to correct deficiencies identified by the testing and/or to replace defective materials and construction as appropriate to meet the specifications.

Surveying: The Engineer has established general survey control and will provide general construction staking for those items associated with the civil site work. The Contractor will be

responsible to lay out the work as needed beyond the identified construction staking. Note that parking lot striping is not included in the project; the University will lay out and paint the parking areas after construction.

Traffic Control: Furnish all necessary pedestrian and traffic control for this project in accordance with the Standard Specifications and the "Manual on Uniform Traffic Control Devices" (MUTCD). Restrict traffic and pedestrian access to the work area in accordance with the MUTCD, providing clearly marked and delineated detours where appropriate. Closely coordinate with the Owner's representative to provide information on closures, schedule, and potential impacts of construction so information can be disseminated to faculty and students.

STANDARD SPECIFICATIONS AND DRAWINGS

Standard Specifications for the civil site work will follow the Idaho Standard Specifications for Public Works Construction, 2017 edition. Standard Specifications applicable to this project are:

Section No.	Description
201	Clearing and Grubbing and Removal of Obstructions
202	Excavation and Embankment
203	Soil Materials
204	Structural Excavation and Compacting Backfill
301	Trench Excavation
303	Exploratory Excavation
302	Rock Excavation
305	Pipe Bedding
306	Trench Backfill
307	Street Cuts and Surface Repairs
501	Gravity Sewers
502	Manholes
504	Sewer Services
701	Concrete Formwork
702	Concrete Reinforcement
703	Cast in Place Concrete
706	Other Concrete Construction
801	Uncrushed Aggregates
802	Crushed Aggregates
803	Plant Mix Aggregates
805	Asphalt
810	Plant Mix Pavement
1001	Construction Site Management
1002	Construction Site Housekeeping
1003	Sediment Collection
1103	Construction Traffic Control

2040	Fencing
2050	Construction Geotextiles

Standard Drawings applicable to this project are:

Section No.	Description
SD-301	Typical Trench
SD-302	Typical Pipe Bedding Section
SD-303	Street Cuts and Surface Repair Details
SD-502	Standard manhole Type B
SD-511	Standard Sewer Service Line
SD-1000	Idaho DEQ Catalog of Stormwater BMP's: www.deq.idaho.gov/water-quality/wastewater/stormwater/

PROJECT SPECIFIC CHANGES OR CLARIFICATIONS TO THE STANDARD SPECIFICATIONS

The following special provisions amend, modify, change, or clarify Standard Specifications as necessary for this project:

- Section 202 Excavation and Embankment: Do not scarify the subgrade but do coordinate with the Engineer concerning uniformity prior to placing separator fabric. Use Class A (mechanical) compaction for all embankments. See Specifications herein for compaction requirements.
- 2) Section 203 Soil Materials: See Specifications herein for additional information on soil materials.
- 3) Section 204 Structural Excavation and Compacting Backfill: Make extra effort and provide suitable equipment to properly and thoroughly compact around existing foundations or structures such as catch basins and manholes.
- Section 302 Rock Excavation: Include a total allowance of 15 yd.³ of rock removal in the contract to address the potential for rock excavation associated with sewer and storm drainage installations.
- 5) **Section 305 Pipe Bedding:** Use Type I pipe bedding sorted from available excavated material; or at contractor's option and without additional cost, furnish and use Type I or Type III pipe bedding material for the sewer and storm drainage piping to be installed. Use Class A-1 Bedding System.
- 6) **Section 306 Trench Backfill:** Use Type A-1 trench backfill and compaction (mechanical) in all areas in lifts not to exceed 9". See Specifications herein for compaction requirements. Restore topsoil at the top of the trench backfill in landscaped areas.
- 7) Section 307 Street Cuts and Surface Repairs: Use the paving section detailed on the Drawings for the asphalt repair for repairing trench cuts across existing asphalt areas, including separator fabric and 12" of pit run gravel under the crushed gravel.

- 8) Section 703 Cast in Place Concrete: Use Class 4000A(B) or 4000A(B)F (4000 psi) for all concrete on this project. Demonstrate reduction of aggregate ASR in the concrete mix designs. Do not exceed 35% of the total cementitious material for fly ash, if used. Place ½" expansion joint next to existing concrete or structures. See Specifications herein for additional information on placing, jointing, finishing, curing, and quality control of new concrete.
- 9) **Section 706 Other Concrete Construction:** Use the mix design parameters specified above for Section 703 "Cast in Place Concrete".
- 10) **Section 801 Uncrushed Aggregate:** Clarification is given that this specification refers to uncrushed aggregates, sometimes referred to in the Specifications and Drawings as granular borrow or pit run gravel. Use 6" gradation or finer and provide proctor for material. See Specifications herein for compaction requirements.
- 11) **Section 802 Crushed Aggregate:** Use Type I (3/4" crushed material) gradation and provide proctor for material. See Specifications herein for compaction requirements.
- 12) Section 803 Plant Mix Aggregates: Use ½" size gradation (commercial mix) and provide Marshall Mix design or equivalent.
- 13) **Section 805 Asphalt:** Use PG 58-28 asphaltic concrete for parking lot and asphalt repair pavement.
- 14) Section 810 Plant Mix Pavement: See Specifications herein for compaction requirements.
- 15) Section 2050 Construction Geotextiles: Use Type I moderate survivability, non-woven subgrade separation geotextile under all pit run gravel. Provide submittal for approval prior to ordering material.

PROJECT SPECIFIC CHANGES OR CLARIFICATIONS TO THE STANDARD DRAWINGS

The following special provisions amend, modify, change, or clarify Standard Drawings as necessary for this project:

- SD-303 Street Cuts and Surface Repair Details: Use Type "P" repair with a local cut back of 12". Use the surfacing section detailed on the Drawings for the gravel layers under the asphalt.
- 2) **SD-511 Standard Sewer Service Line:** Use Type "A" connection.

MEASUREMENT AND PAYMENT

Measurement and payment items set forth in the Standard Specifications are superseded by the contract arrangement for construction using cost plus a fixed fee, with a maximum cap.

The Drawings present quantity estimates for most scope of work items for the civil site work. Quantities shown are "For Information Only" – *contractor must verify quantities as part of assembling the cost proposal.* Immediately notify the Engineer of any discrepancies discovered.

Mobilization is not separately enumerated and thus is intended to be included in the cost of the

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various work items described in the following sections.

SITEWORK

General: It is required to prepare the site where the new improvements are to be constructed. This includes protection of existing utilities, some clearing and grubbing, various demolition work, and environmental stewardship.

Products: Use 4" Schedule 40 PVC piping for extending existing utility sleeves.

Execution: Workmanship is described in the various subcategories that follow

<u>Utilities</u>: coordinate with Idaho Digline for the location of buried utilities prior to beginning any construction. The University provides locates through the Digline contact. Likewise coordinate with the construction manager on the work of other trades that may require additional or upgraded buried utilities to the building prior to, or commensurate with, exterior construction activities.

Existing buried utilities on the site include water, sewer, and storm drainage pipelines; high-voltage and lighting electrical conduits with conductors; communication conduits and conductors including local fiber-optic lines and cable TV; a steam condensate line under the sidewalk to the main entrance; and electrical snowmelt conductors in some existing concrete, including the main concrete pad on the north of the building.

Above or at-ground utilities include vaults, valve covers, catch basins, sprinkler valve boxes, and sidewalk lighting.

Retain and protect all existing buried and at or above ground utilities except as needed to make connection to the existing storm drain piping, and removing and replacing a sidewalk light pole and foundation, as detailed elsewhere in these Civil Site Work Specifications.

In the area of the driveway widening, the University will cut off and cap the water supply piping to the existing sprinkler systems at appropriate locations, and may salvage other equipment such as controls, valves, and valve boxes as they deem appropriate. Otherwise the remaining piping of the existing sprinkler systems in the work area is to be abandoned in place and can be removed. Remove any valve boxes in the work area not salvaged by the University and then backfill and compact the void with appropriate material.

There are electrical, lighting, and sprinkler lines crossing under the west end of the north driveway, which are located inside PVC sleeves under the driveway area. It will be necessary to extend the sleeves for these utilities under the widening of the driveway area that will be constructed as part of this project. Provide and install the sleeve extensions, coordinating with University personnel as required to complete the work and minimize impact the existing utilities.

<u>Clearing and Grubbing</u>: perform clearing and grubbing operations in the area where the north driveway is to be widened. Follow the standard specifications and grub to a depth of 4". Also remove the existing 3" caliper oak tree that is adjacent to the driveway widening area. Remove the stump and root ball.

Remove and dispose of all grubbed materials and vegetation at an approved excess materials site.

Demolition: retain and protect all existing improvements within the site and outside the existing

building not specifically designated for demolition and improvement.

In areas of asphalt demolition and removal, saw cut the existing pavement along the lines indicated in the Drawings. Cut the asphalt to **full depth** and do not begin disruption or removal of the asphalt pavement until the saw cutting has been completed. Carefully remove the saw cut portion of the existing pavement in a manner to not damage the existing pavement to remain (especially not lifting up adjacent asphalt to remain).

For areas of existing concrete slabs to be removed, first cut and remove adjacent asphalt as described above so that the concrete slabs can be broken up and removed without damaging the remaining existing asphalt pavement. For concrete to be removed from existing slab areas (with the remainder to remain), and for the end of the curb to be removed (where the existing will remain); saw cut the concrete to full depth.

Note there is an existing snowmelt system consisting of hydronic conduits that is installed in the main concrete slab north of the building. The conduits will be cut when saw cutting the existing concrete for removal. It will not be necessary to install new or repair the snowmelt system.

For concrete to be removed from an existing slab area, further break up the concrete into smaller sizes after saw cutting so that the concrete can be removed without damage to adjacent existing concrete to remain. Likewise, remove the concrete curb and gutter by first pushing away from the existing curb to remain before picking up sections. Remove and replace any concrete to remain that is damaged by construction at no additional cost to the Owner.

Remove the demolished materials from the worksite and dispose of them at an approved materials disposal site.

There is an existing building sign in the area of the north driveway widening that will be in conflict with new construction. Carefully remove the sign and salvage it to a location as directed by the University. The Owner will later reinstall the sign at an appropriate location after completion of the work.

There is also an existing light pole and foundation for sidewalk lighting that is in close proximity to widening of the north driveway. Retain and protect the light pole and base if possible during construction; or otherwise remove, salvage, and reinstall the existing light pole and foundation after completion of adjacent construction. Work with the University on reconnecting the existing conduit and conductors for the light pole if it is to be reinstalled.

<u>Erosion Control</u>: since the area of site disturbance is less than one acre, a storm water pollution prevention plan and notice of intent with EPA are not required. However, for proper environmental stewardship, implement storm water best management practices (BMP's) to mitigate storm water runoff from the site and potential erosion/sedimentation as may be appropriate or evident from construction conditions (such as in the area of the north driveway at the existing sidewalk along Center Street, for example).

When implementing BMP's, use materials and follow procedures as presented in the "Catalog of Storm Water Best Management Practices for Cities and Counties" document as published by the Idaho Department of Environmental Quality, latest edition.

In general, conduct work and maintain the work area to minimize disturbance and potential for storm water runoff. Control dust produced during construction by limiting disturbed areas to the

minimum needed and watering disturbed areas to minimize dust production.

Regularly observe and maintain any installed BMP's to assure their proper condition and appropriate function. Promptly maintain or repair BMP's as necessary to keep them in proper working condition. Upon completion of construction, remove any accumulated refuse or debris, and grade and smooth any unimproved disturbed areas.

CONCRETE SIDEWALK/PAD CONSTRUCTION AND REPAIR

General: It is required to construct new reinforced concrete sidewalk along the north end of the existing parking lot, for the new ADA sidewalk near the southwest corner of the building, and for filling in the planter areas in the existing sidewalk near the southwest building entrance. Exterior reinforced concrete pads are also required for the new overhead door areas on the east and south of the building where cars will drive in/out for repair work; and to repair the area of the existing concrete pad on the north end of the building that will be disturbed for sewer service line installation.

It is also required to construct non-reinforced concrete pads for the new man doors and to construct an ADA access at the southwest building entrance as shown and detailed on the Drawings.

Work includes grading and subgrade compaction, furnishing and placing crushed gravel base aggregate, constructing reinforced and non-reinforced concrete in these various areas as detailed on the Drawings, and finishing and curing the concrete in accordance with this Specification.

Products: Use ³/₄" (Type I) crushed aggregate for crushed gravel under the sidewalk, ASTM A-615 Grade 60 reinforcing steel, and Class 4000B or 4000BF concrete. Furnish material properties, gradations, proctors, and mix designs for the materials proposed for use. Demonstrate aggregate ASR reduction in the mix design. Use 3"x3"x3" concrete dobie blocks (not chairs) to support steel reinforcement (6" slab).

Use monomolecular evaporation reducer on freshly placed concrete, Confilm as manufactured by BASF or E-CON manufactured by L & M Construction Chemicals, Inc., or Owner approved equal. Use resin and water based curing compound on finished concrete, 1100 Clear as manufactured by W. R. Meadows, or Owner approved equal. Use WR Meadows polyurethane NS Sealant, limestone color, for sealing the top of completed expansion joints.

Furnish and use cast in place replaceable tactile panel system, brick red, as manufactured by ADA Solutions, LLC (only) for the detectable warning strip at the ADA parking access.

Execution: Provide pedestrian and traffic control as appropriate to restrict access to the work area.

Assure the new concrete areas have been excavated and/or filled to the required subgrade depths and grades necessary to accommodate the base gravel and concrete slab construction.

Furnish, place, and compact the required 6" deep crushed gravel base layer under the concrete sections. Compact the crushed gravel to 96% of optimum density. The University will furnish the services of a qualified materials tester and take compaction tests of the crushed gravel base section under the sidewalk and pad areas. Copies of the test reports will be provided to the contractor via the University's e-Builder construction management software system. Promptly re-work any areas of the compacted crushed gravel base that do not meet compaction requirements.

Follow the provisions of the Standard Specifications in constructing the new concrete sidewalks, pads, and ADA access – matching the dimensions and specifications shown on the Drawings which constitutes the University standard for sidewalk construction in order to accommodate snow removal tractors and other light vehicles that will frequently travel over the completed sidewalks.

Place premolded joint filler next to existing concrete to remain, at the corners where curb radii begin and end, and otherwise at maximum 40 ft. intervals or as directed by the Engineer. In constructing the new sidewalk, assure a smooth and uniform transition to the existing remaining sidewalk and that expansion joint material does not protrude above the sidewalk surface in any location.

Furnish and place the reinforcing steel grid in the new reinforced concrete areas as shown on the Drawings, using wired dobies (*not chairs*) to support the rebar grid sufficient to assure the reinforcement remains up in the middle of concrete section and cannot be depressed to the bottom during construction. Note that reinforcement goes through expansion joints as shown on the Drawings.

In the areas of repairing the existing concrete slab, drill into the adjacent concrete and epoxy groutin rebar dowels tied to each of the similarly oriented steel reinforcement bars in the reinforcing bar grid to provide appropriate continuity and load distribution capability.

Construct full width, tooled contraction control joints with rounded edges in the sidewalk and pads at 5 foot intervals or as directed by the Engineer. Take special precaution to place additional control joints at any re-entrant corners or penetrations of the new sidewalk such as light pole or fence post foundations, valve boxes, utility covers, etc. to address the likely cracking that will occur at such areas without proper additional jointing.

The University will provide concrete testing including slump and entrained air content from the first truckload of delivered concrete each day and then again after placement of every 30 yd.³ of concrete placed that day. One set of three concrete test cylinders will be taken for every 30 yd.³ of concrete and tested for compressive strength, one at seven days and the remaining two at 28 days. Copies of concrete quality and strength reports will be provided to the Contractor via e-Builder.

Construct the ADA access at the location shown on the Drawings, incorporating necessary transition slopes and *not exceeding* the maximum slopes specified for the ADA access. Measure and verify the slopes in the field just after concrete placement and screeding to verify compliance with this requirement.

Furnish and place appropriately sized detectable warning panel(s) in the freshly placed ADA access to the ADA parking area, strictly following the manufacturer's directions.

Do not add additional water to the concrete mix in the delivery trucks without the express knowledge and approval of the Engineer. Do not "soup up" the concrete mix to aid in or facilitate placement and finishing. Similarly, the use of concrete tampers or other similar devices to force aggregate away from the concrete surface to facilitate finishing *is strictly prohibited*.

Place new concrete and consolidate with concrete vibrators or tampers operated in a vertical direction – do not use vibrators to move or "flow" new concrete to areas away from initial placement. Screed concrete to the required lines and grades after placement and consolidation of the concrete.

Immediately after placement, consolidation, and screeding of the concrete, apply the specified monomolecular evaporation reducer in accordance with the manufacturer's directions and float the

constructed sidewalk section with a magnesium float – do not use steel finishing tools and do not trowel new concrete surfaces. Take particular care in changing directions of bull floats at the front and back of the slab to avoid inadvertently creating humps or dips in the concrete surface.

Tool the top slab edges and contraction joints to produce smooth, rounded edges.

Apply a light broom finish, perpendicular to the long axis of the sidewalk. Then *immediately* after brooming, apply the specified curing compound in accordance with the manufacturer's directions, thoroughly covering all surfaces, *including* the vertical faces of the placed concrete immediately after form removal.

Provide construction candles and string out construction warning tape to keep pedestrians and vehicles well away from and out of the newly constructed sidewalk and pad areas.

Furnish a laborer to stay with the newly placed and finished concrete for a *minimum of 4 hours* after placement of the curing compound to assure protection of the concrete and curing compound from vandalism and/or trespass by humans or animals. Promptly remove and replace any newly constructed concrete that is damaged, at no additional cost to the Owner.

CURB AND GUTTER CONSTRUCTION

General: It is required to construct new curb and gutter along the new sidewalk on the north edge of the parking lot, and also along the south side of the widened north driveway as shown in the Drawings. Work includes construction of new concrete curb and gutter which includes grading and subgrade compaction, furnishing and placing crushed gravel aggregate, constructing reinforced concrete curb and gutter as detailed on the Drawings, and finishing and curing the concrete in accordance with this Specification.

Note there are two types of curb on this project: Type A which is a standard curve with gutter section; and Type B which is a straight vertical curb.

Products: Use ³/₄" (Type I) crushed aggregate for road base under the curb, ASTM A-615 Grade 60 reinforcing steel, and Class 4000A or 4000AF concrete (low slump). Furnish material properties, gradations, proctors, and mix designs for the materials proposed for use. Demonstrate aggregate ASR reduction in the mix design.

Use monomolecular evaporation reducer on freshly placed concrete, Confilm as manufactured by BASF or E-CON manufactured by L & M Construction Chemicals, Inc., or Owner approved equal. Use resin and water based curing compound on finished concrete, 1100 Clear as manufactured by W. R. Meadows, or Owner approved equal. Use WR Meadows polyurethane NS Sealant, limestone color, for sealing the top of completed expansion joints.

Execution: Construct the gravel portion of the asphalt repair section (or new pavement gravel section in the new construction area) through and under the curb and gutter area. Furnish, place, and compact the required 6" crushed gravel base layer under the new curb and gutter section to 96% of maximum density. The University will provide compaction testing.

Follow the provisions of the Standard Specifications in constructing the new concrete curb and gutter. Match the dimensions shown for the curb and gutter on the Drawings. Match into existing curb and gutter elevations and profile where tying into existing curb and gutter or other existing features. Dowel matching connections.

Place premolded joint filler at the beginning and end of the construction area, at the corners where curb radii begin and end, and where tying into existing curb and gutter.

The University will provide concrete testing including slump and entrained air content from the first truckload of delivered concrete each day and then again after placement of every 30 yd.³ of concrete placed that day. One set of three concrete test cylinders will be taken for every 30 yd.³ of concrete and tested for compressive strength, one at seven days and the remaining two at 28 days. Copies of concrete quality and strength reports will be provided to the Contractor.

Construct contraction joints in the curb and gutter at 10 foot intervals, tooling the edges of the joints and taking care to make sure no "humps" associated with constructing the joints are left in the gutter flowline. Check the flowline and for proper drainage with a string line and level.

After placement, consolidation, and screeding of the concrete; immediately apply the specified monomolecular evaporation reducer in accordance with the manufacturer's directions and float the constructed curb and gutter section with a wood or magnesium float – do not use steel finishing tools and do not trowel new concrete surfaces.

Apply a light broom finish, parallel to the length of the curb. Then *immediately* after brooming, apply the specified curing compound in accordance with the manufacturer's directions, thoroughly covering all surfaces including the vertical faces of the curb base (immediately after form removal if need be).

Furnish a laborer to stay with the newly placed and finished concrete for a *minimum of 4 hours* after placement of the curing compound to assure protection of the curb and gutter and curing compound from vandalism and/or trespass by humans or animals. Promptly remove and replace, at no additional cost to the Owner, any newly constructed concrete that is damaged.

REPLACE CONCRETE STAIRS

General: It is required to reconstruct the stairway on the main west entrance to the building so that the stairway will have hydronic snowmelt capability. This will include reconstructing the existing stairway, a short piece of landing to the west, and the landing to the east going back to the building entrance. A unique feature of this work is that there is an existing steam tunnel beneath the walk and stairway and thus constructing the new concrete will require the installation of deck pans across the top of the tunnel with some shoring beneath to support the construction loads.

Work includes demolition of the existing walk and landings, installation of shoring, and construction of the reinforced concrete landings and stairway – including installation of the hydronic heating system as described in the mechanical specifications.

Products: Use concrete and reinforcement specifications as set forth in the "Concrete Sidewalk/Pad Construction and Repair" specification. Use conventional lumber or other approved materials for the temporary construction shoring system.

Use 16 gauge galvanized concrete deck pans, corrugated or dovetail style to support the concrete placement above the steam tunnel. Secure deck pans to angle irons with tack welding or self-tapping stainless steel screws as per manufacturer's recommendations.

Provide galvanized A36 3" x 3" x $\frac{1}{4}$ " steel angle iron to support the deck pans at the existing concrete walls. Secure with 5/8" stainless steel bolts drilled and anchored into the existing concrete

walls.

Furnish the hydronic heating system and appurtenances as per the mechanical specifications.

Execution: Carefully remove the existing railing on each side of stairway and salvage for replacement and the new stairway. Wire brush the base areas of the rail posts to remove rust and deteriorated paint. Sand with 200 grit to prepare the surface and then paint with two coats of paint to match existing prior to reinstallation of the railings in the new stairway construction.

Demolish the existing concrete stairs and landing areas in accordance with the specifications for concrete demolition set forth in the "Demolition" section of the "Site Work" specification. Demolition is to include removal of the existing deck pans. Remove any demolition material that falls into the tunnel beneath, and dispose of all demolition material at an approved excess materials site.

Install the angle irons at the top interior of the existing tunnel concrete walls in a manner and at the location to provide support for the edges of the concrete deck pans to be used to support concrete during construction. Secure the angle irons to the existing concrete walls with 5/8" stainless steel bolts properly anchored into the existing walls at 12" on center.

Construct shoring along the centerline of the tunnel to support the deck pans at mid-span of the distance between the adjacent concrete walls of the tunnel. Take precaution to avoid and not disturb existing steam lines or other utilities in the tunnel in erecting the shoring. A new, closer access to the steam tunnel is being constructed inside the building as a part of the architectural improvements to facilitate access to the steam tunnel area.

Place the galvanized that deck pans on the angle irons and across the mid-span shoring to support concrete during placement. Follow manufacturer's directions for installing the deck pans, including appropriate overlap and securing the panels. Secure the ends of the deck pan panels to the newly installed angle iron supports by tack welding in accordance with industry standards or the use of stainless steel self-tapping screws per manufacturer's recommendations.

Place any heat reflecting sheets (see mechanical plans and specifications) on the deck pans and then place the reinforcing steel in accordance with the Standard Specifications. Reinstall the handrails. Furnish and place the hydronic heating coils in accordance with the mechanical plans and specifications.

Then construct the concrete stairs and landings in accordance with the Standard specifications and additional directions given in the "Concrete Sidewalk/Pad Construction and Repair" specification. Likewise finish the concrete in accordance with the "Concrete Sidewalk/Pad Construction and Repair" specification and Repair" specification presented earlier in this document.

Remove the temporary construction shoring from the steam tunnel after construction.

ASPHALT REPAIR

General: It is required to repair areas of existing asphalt parking lot removed or disturbed for construction of improvements as detailed on the Drawings, and to construct pavement in the widened area of the existing north driveway. Work includes excavation, grading to proper subgrade, placement of separator fabric and base gravels, and plant mix paving.

Products: Use Type I – moderate survivability non-woven subgrade separation and drainage geotextile fabric on top of the subgrade, 6" minus material or finer for granular borrow (uncrushed aggregate) above the fabric, ³/₄" minus crushed gravel for road base (crushed aggregate) above the granular borrow, and ¹/₂" minus crushed aggregate for plant mix pavement with PG 58-28 asphaltic concrete above the crushed gravel for parking lot pavement and asphalt repairs (commercial mix).

Furnish material properties, gradations, proctors, and mix designs for the materials proposed for use.

Execution: Restrict traffic and pedestrian access to the work area.

The Engineer will provide general boundaries, elevation control, and grade stakes where appropriate such as at grade breaks and critical grade areas. Lay out the work from there, including determining proper subgrade elevations and grades.

Follow the provisions in applicable sections of the Standard Specifications for excavation, gravel material furnishing and placement, and paving.

Excavate out the base gravel in repair areas and excavate to the subgrade elevation in the area of new construction. Remove all excess excavated material as required and properly dispose of it at a contractor-furnished excess material site.

Shape and compact the subgrade. After Engineer's field review and acceptance of the subgrade, furnish and place the geotextile separator fabric assuring proper overlap of joints, full coverage under base gravels, and lap up the sides of any excavated areas.

Then furnish, place, and compact the pit run material in accordance with the Standard Specifications, taking care not to disturb or damage the separator fabric. Likewise furnish, place, and compact the ³/₄" crushed gravel material and plant mix pavement in accordance with the Standard Specifications.

Compact granular materials to 96% of maximum density and plant mix pavement to 92% of maximum theoretical density as established by a Marshall Mix design (or equivalent). Use a straight edge or string line to assure uniform grade and no humps or "bird baths" in the finished asphalt pavement surface.

The University will provide the compaction testing. Re-compact and re-test any areas not meeting compaction specifications until acceptable results are obtained and do so without additional cost to the Owner.

Layout and painting of the parking area striping will be furnished by the University.

SEWER SERVICE LINE

General: It is required to connect to the existing 8" buried sanitary sewer pipeline on the site and extend a new 4" sewer service line over to grease trap and silt separator vaults to be installed at the north side of the existing building. Work includes making the connection; and then providing excavation, installation, and backfill of the new sewer service line.

Products: Use a 4" InsertaTee fitting for making the connection to the existing 8" PVC gravity sewer pipeline. Use ASTM D-3034 SDR 35 PVC sewer pipeline and associated fittings for the

sewer service line from the point of connection to over to the grease and silt trap vaults. The vaults are specified and furnished under the mechanical plans and specifications.

Use a traffic rated cleanout at the bend on the sewer service line, Zurn or approved equal, with countersunk operator on the metal, traffic-rated cleanout plug.

Execution: Call Digline to have the location of the existing sanitary sewer main marked. There is an existing manhole approximately 50 ft. south of the point of connection that will assist in determining alignment and elevation of the existing sewer main. Then determine a pipeline route that will bring the new sewer service line from the grease trap and silt separator to a point of connection with the existing 8" gravity PVC sewer line as shown on the Drawings.

Perform exploratory excavation to determine the location and condition of the existing sewer line at the point of connection. Carefully excavate to expose the sewer line and such additional space as is required to properly make the connection and begin installing the new sewer service line.

Install the InsertaTee connector in strict accordance with the manufacturer's directions. When drilling, use a cutting grease recommended by the drill manufacturer. Take precaution to recover the pipe coupon upon drilling the hole for the sewer service connection fitting.

Perform excavation and backfill, and install the sewer service line over to the grease and silt structures in accordance with the Standard Specifications. Install with at least 5 ft. of cover over the pipeline. Plan for the potential of 10 yd.³ of rock excavation and removal in the sewer service line trench excavation, and include the cost thereof in the costs allocated for the sewer service line installation.

At the grease and silt structures, make an appropriate watertight connection to their outlet piping in accordance with the Standard Specifications. Install the cleanout indicated on the Drawings at the 45° fitting in the sewer service line in accordance with industry standards, and assure proper vertical positioning of the cleanout cap in the repaired asphalt surface. Take reference measurements to the cleanout location to two permanent landmarks (building corners, etc.) and report the information on the as-constructed drawings of the sewer service line installation.

STORM DRAIN IMPROVEMENTS

General: it is required to construct a new catch basin and curb inlet for the new curb and gutter along the north sidewalk, and remove an adjacent existing drain inlet and replace it with a concrete manhole. Together these two work items constitute the "Storm Drain Improvements" shown on the Drawings.

Work includes excavation and backfill, furnishing and installing the catch basin and manhole with associated materials, connecting the new catch basin to the new manhole, and connecting existing storm drain pipelines the new manhole as detailed on the Drawings.

Products: use the following materials for the storm drainage systems:

- ASTM D-3034 SDR 35 PVC pipe and fittings for storm drain
- ASTM C-858 precast reinforced concrete boxes for catch basins
- ASTM C-478 precast reinforced concrete manhole
- Flexible watertight pipe to catch basin and manhole boot style connections, Press-Seal PSX or Kor-N-Seal 106

• Heavy duty cast iron frame, grate, and curb style inlet on catch basin, Neenah R-3067-L (only)

Execution: begin by conducting exploratory excavation around the existing drain inlet structure to determine pipeline type and size, and confirm pipeline elevations so that the new manhole structure that will replace it and the new catch basin structure can be constructed accordingly. This work will need to be accomplished prior to constructing the new catch basin and manhole structures so that they can be built to the proper elevation (note the manhole has a flat cover and will be very shallow).

When the precast structures are available, carefully excavate around the existing drain inlet structure to expose it and a sufficient length of presently connecting piping to make proper connection. Cut the existing piping as close to the existing drain inlet as possible and then remove the existing drain inlet structure.

Install the new catch basin in the proper location (Engineer will provide offset stakes) assuring the subgrade is thoroughly and properly compacted to support the structure in its final position. Likewise install the new manhole, taking extra precaution to assure the top of the structure will be in the proper position to accommodate the new sidewalk to be built above it and having the ring and cover installed flush with the new sidewalk grade.

Construct piping connections between the new catch basin and new manhole, and also from the existing storm drain pipes to the new manhole at the required elevation and grade. Follow manufacturer's recommendations for the boot connections, using proper torque to assure a watertight connection.

Furnish and place the required catch basin inlet grate, adjusting it to proper grade to coincide with the curb and gutter (with grate 0.10 ft. below normal gutter line) by using shims under the grate frame and installing solid concrete grout to fill all voids between the top of the catch basin structure and the grate frame. Similarly furnish and place the manhole ring and cover on top of the manhole lid, using shims under the frame to adjust the top of the manhole cover to the elevation *and slope* of the new sidewalk to be constructed.

Backfill and thoroughly compact around the new catch basin and manhole structures. Proper compaction is critical to prevent future settling around these structures that will undoubtedly occur without proper attention to backfill and compaction. Compact to 96% of optimum density for the backfill material. The University will provide testing for the compaction.

Finish the backfill at the required elevation to accommodate the crushed gravel materials under the new curb, gutter, and sidewalk.

CHAIN LINK FENCING

General: It is required to construct new 6' high chain link fencing and gates around the north parking area as shown on the Drawings. The fence will be 6' high with privacy slats and powder coated rails, posts, and fittings. Work includes furnishing and installing the fencing materials, post foundations, and double swing traffic gates in the locations shown on the Drawings.

Products: Use 2 inch mesh ASTM A-392 fencing fabric of 9 gauge wire, galvanized after weaving, 7 gauge zinc coated tension wire at the bottom, 9 gauge aluminum tie wire, galvanized truss rods and tension bars; Schedule 40 galvanized steel (Class 1) fence posts, 2-3/8" line posts, 2-7/8" corner and end posts, 4" gate posts, and 1-5/8" top rail; all with end caps.

The posts, rails, and fittings are to be powder coated in a color to be selected by the Owner. The fence mesh is to be galvanized (not colored).

Use Class 3000 or 3000F concrete for the 3' deep x 12" diameter fence post foundations (3.5' deep x 12" diameter for the gate and end posts).

Use knuckle configuration for mesh selvage at top and bottom. Mesh grounding is not required. Furnish with full height PVC privacy slats throughout, color by Owner. Provide locking gate latches, drop bar, and receiver for double swing drive gates. Furnish gate stops for securing the gates when in an open position.

Execution: the Engineer will stake out the corners of the fencing. Pull offsets as required to locate the fence in the proper position while still having appropriate survey control. The fence is to be placed in the southerly 6" of the new concrete sidewalk to be constructed – so the fence location and alignment are critical.

Grade and smooth the area along the fence alignment to produce a uniform grade, consistent with what will be the finished grade along the fence line. Install the fence and gate posts in concrete foundations as detailed on the Drawings. With wind loads against a chain-link fence with privacy slats, adequate foundation is a critical item for appropriate construction and long service life.

Furnish and install the fencing materials and system in accordance with the Standard Specifications, industry-standard practice, and manufacturer's recommendations. Brace all corners, ends, and gates. Tie the new fencing to the northwest corner of the existing fenced-in enclosure at the northwest corner of the building.

Install lockable gate latches, drop rods, and receivers in an appropriate location and manner to properly secure the closed gates. Likewise, furnish and install gate stops to secure gate panels when they are in the open position.

-- End of Civil Site Work Specifications -

GENERAL NOTES - SITE PLAN

- REFER TO CIVIL AND STRUCTURAL PLANS FOR CONTROLLING ELEVATIONS OF SITE ELEMENTS TO INCLUDE BUT NOT LIMITED TO HARDSCAPE, STAIRS, RAMPS AND
- PLANTER WALLS 2 CONTRACTOR TO PROVIDE NECESSARY SIGNAGE FOR PEDESTRIAN ACCESS AND ROUTE AROUND CONSTRUCTION SITE AND CONSTRUCTION FENCE A MINIMUM OF 6'-0" IN HEIGHT

KEYED NOTES

02.12	REMOVE LANDSCAPING, FILL WITH CONCRETE AND PROVIDE CURB CUT FOR ADA ACCESSIBILIT SITE PLAN / CIVIL DRAWINGS
02.46	PROTECT EXISTING BOLLARD TO REMAIN. IF BOLLARD NEED TO BE REMOVED TO PLACE NEW F AND FOUNDATION, SALVAGE BOLLARD AND RE-INSTALL IN SAME LOCATION.
02.47	EXISTING RETAINING WALL AND STRUCTURE TO BE PROTECTED DURING CONSTRUCTION.
03.01	BACKFILL EXISTING LOADING BAY RECESSES AND TOP WITH CONCRETE
03.03	NEW SIDEWALK, RE: CIVIL
03.04	NEW HEATED SIDEWALK AND STAIRS. THIS STAIR IS OVER AN EXISTING STEAM TUNNEL AND WI FURTHER INVESTIGATION AND COORDINATION DURING DEMOLITION AND CONSTRUCTION, RE: MECHANICAL, PLUMBING, CIVIL AND ELECTRICAL.
03.05	NEW SAND AND GREASE SEPARATORS
05.01	NEW LANDING, STAIRS AND GUARDRAIL AND RAILING (POWDER COATED - COLOR TO BE SELEC OWNER AND ARCHITECT.)
05.05	NEW CHAIN LINK FENCE GATE WITH PRIVACEY SLATS
05.11	NEW 6" STEEL BOLLARD, RE: CIVIL
05.12	NEW POWDER COATED GUARDRAIL, COLOR TO BE SELECTED BY OWNER AND ARCHITECT. RE; ELEVATIONS, DETAILS AND STRUCTURAL.
11.01	DUMPSTER LOCATION
11.05	CONCRETE WASH OUT. RE: INTERIOR FURNISHINGS AND EQUIPMENT PLANS AND SCHEDULES
26.02	LIGHT FIXTURE, RE: ELECTRICAL
32.01	ACCESSIBLE CURB CUT WITH TRUNCATED DOME
32.02	PATCH PAVEMENT, RE: CIVIL
32.03	NEW 6" CURB. PAINT RADIUS OF NEW CONCRETE CURB.
32.04	EXISTING TREE TO BE PROTECTED DURING CONSTRUCTION. TRIMMING MAY BE REQUIRED FOR CANOPY. OWNER WILL PROVIDE TRIMMING.
32.05	NEW PAINTED STRIPING FOR WALKWAY AND/OR ADA PARKING STALL ACCESS.
32.07	NEW 4" SANITARY SEWER SERVICE TO CONNECT TO EXISTING 8" SEWER, RE: CIVIL
32.08	CONVERT EXISTING CATCH BASIN INTO A MANHOLE, RE: CIVIL
32.09	NEW CATCH BASIN, RE: CIVIL

32.10 NEW CURB AND GUTTER, RE: CIVIL

32:11 NEW PAINTED STRIPING 32.12 NEW 6'-0" POWDER COATED POSTS WITH GALVANIZED CHAIN LINK FENCE AND VINYL PRIVACY SLATS. COLOR TO BE BLACK OR TAN. CONFIRM COLOR WITH OWNER AND ARCHITECT DURING SUBMITTAL PROCESS (PRIOR TO PURCHASE OR INSTALLATION).

SITE LEGEND

	ADA ACCESSIBLE ROUTE
←	ADA ACCESSIBLE EXIT
SD	STORM DRAIN
SS	SANITARY SEWER
—————E————	ELECTRICAL
SD	EXISTING STORM DRAIN
	EXISTING SANITARY SEWER
——Е	EXISTING ELECTRICAL

— GRADING TO BE
REVISED PER FUTURE
SURVEY. TBD

nnrth

November 10, 2020

BYUI Engineering Technology Center (ETC) Addendum #2

SE-101

1. Four-inch step in the slab was modified to be 7" in height. Step occurs between grids 5 and 6 at east side of building.

Thanks,

Donald Lee Barfuss

Donald Lee Barfuss

KEYED SHEET NOTES

- > INDICATES NOTES ARE KEYED ON PLAN.
- $\langle 2 \rangle$ demolish slab to install New French Drain, see sheet M301 FOR PIPE RUNNING PARALLEL TO FRENCH DRAIN. REPAIR AS REQ'D.
- \langle 3 \rangle INFILL MASONRY WALL, SEE DETAIL A1/SE-511 $\overline{(4)}$ INFILL DOCK LEVELER WITH 6" REINFORCED CONCRETE WALLS AND SLAB WITH #4 AT 18"O.C. EACH WAY. FILL
- WITH GRAVEL. $\langle 5 \rangle$ Demolish slab to install New Foundation for MEZANINE. REPLACE AS REQ'D.
- $\langle 6 \rangle$ NOT USED.
- > MODIFY FLOOR VENTS, COORDINATE WITH MECHANICAL FILL EXISTNIG VENT OPENINGS WITH 1/4" PLATE THAT EXTENDS 3" PAST OPENING AND SCREW INTO CONCRETE WITH 1/4"Ø SIMPSON CONCRETE SCREWS AT 4" O.C. CUT NEW OPENINGS WITH DRILLED HOLES AT CORNERS AND CUTTING BETWEEN HOLES. DO NOT OVERCUT CORNERS.
- PROVIDE NEW 6" CONCRETE SLAB ON 4" FREE DRAINING GRAVEL. REINFORCE WITH #4 AT 18"O.C. EACH WAY, CENTER OF SLAB
- $\langle 10 \rangle$ NEW MW-8A REINFORCED MASONRY WALL ON 12"X2' FOOTING. > LOWER SLAB TO BE SAME ELEVATION AS MAIN BUILDING. NEW 6" SLAB ON GRADE.
- $\langle 12. \rangle$ Freezer Slab: Remove existing top slab and foam. FILL WITH GRAVEL AS REQUIRED. PROVIDE 5" SLAB ON GRADE REINFORCED WITH #4 AT 24"O.C. EACH WAY IN
- CENTER OF SLAB. $\langle 13. \rangle$ For New Guardrail at Retaining Wall, see detail
- D4/SE-521. $\langle 14. \rangle$ All steel angles and plates etc. In the tunnel area
- $\langle 15. \rangle$ Top of Foundation Callouts are approx. Match EXISTING FOUNDATION TO AVOID ROCK BLASTING.

^{__∕} SHALL BE GALV. AFTER FABRICATION.

GENERAL SHEET NOTES

- \rangle INDICATES NOTES ARE KEYED ON PLAN. 1 CRILL AND EPOXY TO EXISTING. 5" MINIMUM EMBEDMENT. 1. SEE ARCHITECTURAL DRAWINGS FOR SLOPES AND RECESSES IN FLOOR SLABS
 - P. FOR CONCRETE WALL REINFORCING, SEE CONCRETE WALL SCHEDULE ON SHEET SE-002.
 - 3. FOR CONCRETE PIER/COLUMN REINFORCING, SEE CONCRETE PIER SCHEDULE ON SHEET SE-002.
 - 4. FOR CORNER, INTERSECTION, AND END BARS IN CONCRETE WALLS SEE DETAILS A1 AND A2/SE-501.
 - 5. FOR CONTROL JOINTS IN SLABS ON GRADE SEE DETAIL B4/SE-501.

LEGEND

INDICATES CONCRETE SLAB ON GRADE, SEE PLAN NOTES. `______ ∢ INDICATES CONCRETE FOOTING TYPE AND TOP OF FOOTING ELEVATION. F-?? INDICATES CONCRETE FOOTING & FOUNDATION WALL, SEE SCHEDULES FOR SIZE AND REINFORCING. CW-?? INDICATES CONCRETE WALL, SEE SCHEDULE. CW-?? INDICATES RECESS IN CONCRETE FOUNDATION WALL INDICATES RECESSED SLAB, SEE ARCH. INDICATES DIFFERENT SLAB THICKNESS **_ _ _ _ _ _** INDICATES ISOLATION JOINT IN SLAB ON GRADE. SEE DETAIL ?" INDICATES CHANGE IN SLAB ELEVATION AND DEPTH FROM F.S.E. INDICATES STEP IN WALL s------s _____ CP-? INDICATES CONCRETE PIER (CP), SEE SCHEDULES MW-?? INDICATES MASONRY WALL, SEE SCHEDULE. MW-?? INDICATES NON-BEARING MASONRY WALL. MB-?? INDICATES MASONRY BEAM, SEE SCHEDULE. INDICATESMASONRY PIER (MP) OR COLUMN (MC), SEE SCHEDULES INDICATES STEEL HSS (HSS) OR STEEL WIDE FLANGE (W). COLUMN AND BASE PLATE, SEE SCHEDULES INDICATES CONCRETE FILLED STEEL COLUMN, FILL WITH 4000psi SELF CONSOLIDATING CONCRETE. INDICATES CONCRETE ON METAL DECK

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777

5

SE-101 100% Construction Documents