

Planning Commission

City Building

City of Sandusky, Ohio 44870

October 24th, 2018 1ST FLOOR CONFERENCE ROOM 4:30 P.M. AGENDA

- 1. Meeting called to order Roll Call
- 2. Review minutes from the September 26th, 2018 meeting
- 3. Kevin Boehler, on behalf of S & S Realty Ltd, Has submitted an application for site plan approval for 1931 Cleveland Road.
- 4. Discussion on Mural definition and regulations
- 5. Other business
- 6. Meeting Adjourned

NEXT MEETING: November 28th, 2018

Please notify staff at least 2 days in advance of the meeting if you cannot attend. Thank you.

Planning Commission September 26th, 2018 "DRAFT" Meeting Minutes

The following members were present: Mr. David Miller, Mr. David Waddington, Chairman Zuilhof, Mr. McGory, Mr. Galea, and Mr. Whelan. Ms. Angie Byington, Mr. Greg Voltz represented the Planning Department; Mr. Trevor Hayberger represented the Law Department and Ms. Casey Sparks, Clerk from Community Development. Mr. Jim Jackson arrived at 5:00 PM.

Mr. Miller motioned to approve the minutes from August 2, 2018; Mr. McGory seconded the motion.

Mr. Miller motioned to approve the minutes from August 22nd, 2018; Mr. McGory seconded the motion.

Chairman noted the agenda change on item four, Shoreline Drive discussion of traffic calming and safety alternatives including alternate A.

Chairman Zuilhof stated the application is from Cedar Point Park, LLC for petitions for the following vacations: a petition for the vacation of a portion of Farwell Street located between 1800 Cleveland Road and 1810 Cleveland Road and a petition for the vacation of a 10' alley located between 1706 Cleveland Road and 1800 Cleveland Road.

Mr. Votlz stated that Cedar Point Park, LC has submitted a petition for the vacation of a portion of Farwell Street located between 1800 Cleveland Road and 1810 Cleveland Road. Cedar Point Park, LLC has also submitted a petition for a 10' alley located between 1706 Cleveland Road and 1800 Cleveland Road, the existing use of the area is vacant building and land. The current zoning of the property is General Business. The alley proposed to be vacated is located between parcels 57-01884.000 and 57-04694.000. The proposed vacated portion of Farwell Street is located between parcels 57-04694.000, 57-0775.000, and 57-04750.000. The proposed vacation of the alley and street would be divided between the properties, in this case the only property owner is Cedar Point Park, LLC. The applicant proposed to utilize the area for future development of these parcels. Engineering staff has reviewed the proposed vacation and stated that the applicant needs to maintain access to sewer and water and would request easements to maintain access to a 36" interceptor sewer on Farwell Street.

Mr. Voltz stated that in conclusion planning staff has no objections to recommending approval of the requested vacation to City Commission contingent upon easements for Engineering to access and maintain the sewer line on Farwell Street.

Mr. McGory asked staff if the short alley just beneath Route 6 sign was ever extend further.

Mr. Voltz stated that this was previously vacated.

Mr. McGory asked staff if the larger Farwell street extension is this another roadway.

Mr. Voltz stated that this is the original Cleveland Ave right-of –way.

Mr. McGory asked if there is a requirement for the surrounding homes to weigh in regarding the proposed vacation.

Mr. Voltz stated that if Cleveland Ave were to be vacated it would be a requirement but not for this area.

Mr. McGory stated that because there is right-of-way between the properties it is not necessary, their property would have to abut this area for notification requirements.

Mr. Miller ask if the application is an encroachment on easement.

Mr. Voltz stated that it would appear to be an encroachment on the easement.

Mr. Miller ask if they were to combine the lots is there still a prohibition about building onto of the sewer.

Mr. Voltz stated that they will be restricted to 15' on either side of the easement in which they would not be able to build.

Mr. McGory made a motion to approve the vacations of both parcels with staff's conditions; Mr. Whelan seconded the motion.

With no further discussion the motion passed 7/0.

Chairman Zuilhof stated that the next item on the agenda is discussion of traffic calming and safety alternatives.

Ms. Byington stated Planning Commission has previously approved a conceptual drawing for Shoreline Drive. During the design process thought has been given to the east end of Shoreline Drive specifically to improve pedestrian and vehicular safety. Your packets have alternative A, this evening they are looking for input and opinion on the proposed alternatives from the Commission. The final plan will still come back to Planning Commission approval, Mr. Klein is here to explain the alternatives.

Mr. Klein stated that he can explain how they arrived at this point and explain what they are proposing through the design build process. This came to Planning Commission in November and City Commission in December, City Commission decided to go with the design build process. The design build process takes the plan to 30%. Going through this process, the budget numbers began looking high so they began looking at several possibilities. When it got to the far east end of the street, there was a lot of discussions regarding safety, the consultants knew the conversations that had happened during the planning process and why that drive entrance was to be closed off at the park. The base bid in design build documents only showed a buffer between the condos drive entrance and the roadway. This could be accomplished with a curbed buffer or rain gardens, however this is not fully designed as it is only at 30%. This area needs to be improved from a safety standpoint it is a blind turn. The reason in the plans presented only two options is because they need to show cost on these options. They tried to determine if there is a cost savings with closing the east end of the road. They received the base bid price and the alternate price. Staff would like to go to Commission in October stating that we are not certain of what we are going to do, however we want to include the alternatives and costs. We initially have developed concepts, we now need to develop a design. Looking for support for this body to say that something needs to be done. Staff has not seen the traffic accident reports but would not want to wait until something happens, they will do the public process and get buy in for the final recommendations.

Mr. McGory ask staff if one of the alternative is that they clean up the area and leave it how it is.

Mr. Klein stated that is correct.

Mr. McGory ask if the second alternative is change to change it from a thru public street to a private drive for condos.

Mr. Klein stated that a private drive is not an alternative they are proposing and explained the proposed drive entrance.

Mr. Wobser stated that drive proposed is to be access drive that would prohibit all 13 condos from all backing into Shoreline Drive.

Mr. McGory stated that another option that they are considering is to close off the entrance to Water Street and extend green space to the condos.

Mr. Klein confirmed that this is one of the options, closing the street and create green space.

Mr. Klein stated that everything is on the table.

Mr. Whelan asked if there a visual representation for an option of closing the street where the rain gardens behind the condominiums.

Mr. Klein stated that this does not occur until the drawings are at 60%.

Mr. Miller asked if it is the case that the western entrance of the park is eliminated in all alternatives, is that within the base bid.

Ms. Byington stated the ideas that they would like to get from the Commission this evening would be thoughts on narrowing the road to try to calm traffic, a large bump out, and determine if you are all in agreement that something needs to be done and if so what needs to be done.

Mr. Galea asked if whatever alternative is selected, a driveway will need to be maintained to these condos. The question could be is if it is a thru drive or a private drive.

Mr. Miller confirmed if the commission is to task engineering, planning staff, or the consultants to come up with a range of possibilities.

Mr. Klein stated that they will be looking to Commission and everyone for ideas, however they will have a budget so there will be give and take.

Mr. Miller asked with any alternative that would be considered would there be a trade off with something else on the project. Are there line items for certain aspects of the project, for example is there a certain budget for utilities and a certain budget for streetscape work.

Mr. Klein stated that those conversations have been occurring for two months and they reduced the scope of the project to meet the available budget that they had. They are proposing burying some of the utilities from Wayne Street to the marina, just that piece. If those things are locked in they will stay, if an alternative stays in they could see if there is savings elsewhere or come back to commission to get additional funding. The City Manager's office is trying to find funding to accommodate certain things such as this.

Mr. Zuilhof stated that he was hoping for utilities to be buried along Shoreline Drive, he is worried that whatever does not get done in this process we will have to wait a long time to get done.

Mr. Wobser stated the through this process stakeholders expressed that they would like to see the utility lines buried as much as possible. The base bid we had as Wayne Street to marina, we do not have the funds available to go east of Wayne Street. It would be an additional \$400,000-500,000 to bury the lines from Wayne to Hancock, however we will look to find alternative funding if possible. For safety and aesthetics the city would like to bury as much as possible.

Mr. Zuilhof stated another idea for cost savings would be to eliminate separated bike lanes within this area to reduce cost.

Mr. Wobser stated that he would not eliminate the bike path within this area, this is supposed to be mile zero for people to go on and off the back bike path downtown. The plans call for allowing pedestrians and bikers to share the sidewalk which does not appear to be uncommon.

Mr. Klein stated that if utilities are not buried now staff will not be going back to them for another 15 years. Now would be the best time to do bury the utilities.

Mr. Zuilhof stated that expanding the park and eliminate motor vehicle traffic could cause an issue because it would make public uses right under the windows of the condominiums, and he would suggest a small buffer. Mr. Galea stated that if it should come to pass that Shoreline Drive is closed there could be a berm or permanent landscaping so park users will be encouraged to the park area and away from the access drive, creating a barrier for privacy of the residents in that area.

Mr. Zuilhof stated that the Bayfront Corridor Committee was invited to listen to presentation. That committee will be discussing this on their regular scheduled meeting. If there is interest in hearing public comment the commission will need to make a motion to take public comment.

Mr. McGory moved to hear public comment; Mr. Whelan seconded the motion.

Tim Schwanger, stated that he was under the impression that Planning Commission was going to approve alternate A which included closing off Shoreline Drive between Franklin and Hancock Street. Mr. Schwanger ask if the agenda was amended.

Mr. Zuilhof stated that it was amended and they are here to review options provided by Engineering on this issue

Mr. Schwanger stated that there is an issue with the park entrance, he would support closing off the entrance to the park not closing the street.

Mr. Wieber, 335 East Water Street, thanked the Commission for allowing him to comment on improving safety and calming traffic. He lives in the condos along Shoreline Drive and he has witnessed a number of times where a car nearly misses children and bikers. There is a blind curve when approaching from the east and there is only 30' between the edge of the building crosswalk as it terminates into East Water Street. People speed within this location. He has also witnessed ODNR dodge people when trying to back out of their research vessels into their facility. He believes that closing this street will assist in calming the traffic and creating a safe area.

Mr. McGory asked Mr. Weber if as a resident he supports the closing of the street completely.

Mr. Weber stated that he does support closing the street completely.

Marcy Platt, 1217 Columbus Ave stated that looking at the drawing she is wondering why they are not concerned about parking. She believes the intersection of Facer Park is worse than the area of Shoreline Park.

She stated that she is concerned about the proposed back in parking, if the commission is really concerned about safety they should review this issue again.

Mr. Galea stated that in light off the comments made and what Mr. Klein sated on behalf what engineering and staff want to do, he would like to make a motion to support engineering and staff to study and develop traffic calming and safety alternatives for the east end of Shoreline Drive at their discretion, otherwise not taking any options off the table, also concurrent with that to bury the utilities along Shoreline Drive recognizing that this may be our one shot for the foreseeable future to do that; Mr. Waddington seconded the motion.

With no further discussion the motion was passed 7/0.

Mr. McGory motioned to adjourn the meeting; Mr. Jackson seconded the motion.

With no further business, the meeting at 5:21 PM.

APPROVED:	
Debi Eversole, Clerk	Michael Zuilhof, Chairman

CITY OF SANDUSKY, OHIO DEPARTMENT OF DEVELOPMENT DIVISION OF PLANNING

PLANNING COMMISSION REPORT

APPLICATION FOR SITE PLAN APPROVAL FOR HOLIDAY INN EXPRESS EXPANSION AT 1931 CLEVELAND ROAD

Reference Number: PC-21-2018

Date of Report: October 16, 2018

Report Author: Greg Voltz, Planner



City of Sandusky, Ohio Planning Commission Report

BACKGROUND INFORMATION

Kevin Boehler, on behalf of S & S Realty Ltd, has submitted a site plan application for an expansion of the Holiday Inn Express to be located at 1931 Cleveland Road. The following information is relevant to this application:

Applicant: S & S Realty LTD

1210 Sycamore Line Sandusky, Ohio 44870

Authorized Agent: Kevin Boehler

John Hancock & Associates, inc.

326 E Market Street Sandusky, Ohio 44870

Site Location: 1931 Cleveland Road

Zoning: "GB" General Business

North: "CR" Commercial Recreation East: "CR" Commercial Recreation South: "RB" Roadside Business West: "GB" General Business

Parking: Existing – 251 and 14 Handicap

Proposed – 301 and 19 handicap (onsite) 60 (overflow)

Existing Uses: Hotel

Proposed Uses: Hotel expansion

Applicable Plans & Regulations: City of Sandusky Comprehensive Plan

Sandusky Zoning Code Chapter

Chapter 1149 Site Plan Review & Off-Street Parking

Chapter 1133 Business Districts

SITE DESCRIPTION

The subject property is located along Cleveland Road, at the intersection of Cleveland Road and Cedar Point Drive within the City of Sandusky. The area is zoned "GB" General Business, which permits the following:

(a) Main Buildings and Uses.

(1) All stores, services, dwellings, and other uses permitted in Roadside Business Districts;

- (2) Additional retail business stores and services conducted wholly within enclosed buildings, and devoted to supplying all community needs to the following extent:
 - A. The sale of all food; frozen food lockers; state liquor stores;
- B. The sale of general merchandise; dry goods, wearing apparel, shoes, hats, variety, and department stores;
- C. The sale of all hardware, appliances, china, furniture, floor and wall covering, business equipment, music, radios and televisions, provided no loudspeakers broadcast onto the street;
- D. Shops for custom work, and all personal service establishments without limitation on the number of persons engaged in work, provided the services rendered and articles produced are to be sold only at retail, and only on the premises;
- E. Photographic developing, blueprinting, letter and small job printing shops, medical and dental laboratories, radio and television broadcasting stations, transmittal towers, telephone exchanges, and transformer stations;
 - F. Railroad and bus passenger stations, taxi stations;
- G. Offices such as banks, travel bureaus, public utility, insurance, and all types of business and professional offices;
 - H. Wholesale offices and showrooms.
- (b) <u>Similar Main Uses.</u> Any other general business store, shop, or service not listed above or in any subsequent use classification and determined as similar by the Commission.
 - (c) Accessory Buildings or Uses.
 - (1) Accessory off-street parking and loading facilities as required and set forth in Chapter 1149.

1931 Cleveland Road



Zone Map – Parcels Indicated



DIVISION OF PLANNING COMMENTS

Over the past few month's planning staff and the applicant have worked together on the proposed site plan. Staff provided comments regarding landscaping, parking, building design, off street loading areas, and access. The applicant was open to revising the site layout, the most recent submission reflects revisions such adding in location of and number of additional parking, location of landscaped areas, call outs for aisle and stall widths and lengths, addition of location of pavement markings denoting parking lot traffic circulation, and clarification of the applications method to obtaining required parking stalls. The proposed structure does meet current set back requirements for General Business districts. General Business districts allows for a maximum building height of 125 feet, the proposed 5-story building is well within this requirement. In commissions packet you will find a site plan of the proposed structure and parking. The applicant has stated that the style and design of the addition will closely mimic the existing Holiday Inn Express structure. Staff did have some concerns regarding the initial submission however, Staff is in general support of the revised design.

Staff will note the applicant proposes parking as they interpret the code. However, staff believes the code, as written, would require a higher number of spaces than proposed, but that staff believes the applicants proposed parking count meets the intent of the code. The square footage and parking requirements per use is as stated below:

PARKING REQUIREMENTS ARE PER SECTION 1149.05 OF THE SANDUSKY CODIFIED ORDINANCE BUILDING USE 1SPACE PER GUEST ROOM a1 - HOTEL 73 ROOMS = 73 SPACES 66 ROOMS = 66 SPACES **FXISTING** PROPOSED 7 SPACES PER LANE c3 - BOWLING ALLEY 30 LANES = 210 SPACESd4 - RESTAURANT/BAR 1 SPACE PER 100 S.F. EXISTING PARKING TABLE 4900 S.F. = 49 SPACES PARKING REQUIREMENTS ARE PER SECTION TOTAL SPACES REQUIRED: <u>398 SPACES</u> TOTAL HANDICAP SPACES REQUIRED: <u>8 SPACES</u> 1149.05 OF THE SANDUSKY CODIFIED ORDINANCE 1SPACE PER GUEST ROOM COMBINED PARKING PER SECTION: 1149.06 73 ROOMS = 73 SPACES 40 ROOMS = 40 SPACES HOTEL SHARES PARKING WITH RESTAURANT/ BAR 20% OR 10 STALLS 7 SPACES PER LANE HOTEL SHARES PARKING WITH BOWLING ALLEY 30 LANES = 210 SPACES 1 SPACE PER 100 S.F. 45% OR 95 STALLS TOTAL SHARED STALLS: 105 STALLS TO BE DEDUCTED FROM OVERALL PARKING COUNTS 4900 S.F. = 49 SPACES TOTAL SPACES REQUIRED: 372 SPACES REVISED TOTAL SPACES REQUIRED: 293 STALLS TOTAL HANDICAP SPACES REQUIRED: 8 SPACES TOTAL HANDICAP STALLS REQUIRED: 7 STALLS

PROPOSED PARKING TABLE

Proposed Parking Spaces: 301

REQUIRED

BUILDING USE

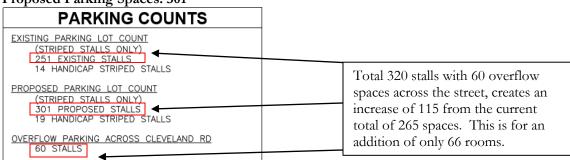
HOTEL

HOLIDAY INN

QUALITY INN

c3 - BOWLING ALLEY

d4 - RESTAURANT/BAR



As noted above, per the letter of the code, the proposed and existing uses would require 372 parking spaces and the applicant is proposing 320 spaces. However, it is important to note that section 1149.06 of the code does allow for combined uses of parking facilities: "A building, or group of building, containing two or more uses, operating during the same hours, and which are different off-street parking requirements, shall provide spaces for not less than the sum of the spaces required for each use...". However, the applicant is stating that the users of the hotel are also users of the bowling alley and the restaurant bar, thus reducing the need for spaces. Staff believes that the applicant is meeting the intent of the code because a large percentage of the hotel guests are also utilizing the other uses as "hotel accessory uses". While there are some overlap in operating hours, not all the uses do not normally operate normally during the same hours thus allowing for shared parking. The applicant feels confident that they have more than enough parking on site due to the high amount of parking required per lane in regards to a bowling alley. The applicant will also provide 60 overflow parking spaces directly across the street (as seen in the image below), which would bring the proposed parking to 361 total parking spaces.

CIEVILID

Proposed location of overflow parking spaces.

ENGINEERING STAFF COMMENTS

The City Engineer has reviewed the proposed site plan and has stated the following comments and concerns:

BUILDING STAFF COMMENTS

The City Building Official has reviewed the application and has no concerns regarding the proposed site plan; however, building permits and drawings will need to be submitted for any improvements or alterations.

POLICE DEPARTMENT COMMENTS

The City Police Chief has reviewed the application and has no objections to the proposed site plan, however they will need to address jurisdictional issues with police and fire for site with the respective agencies.

FIRE DEPARTMENT COMMENTS

The City Fire Chief has reviewed the application and has no objections or concerns regarding the site plan application.

CONCLUSION/RECOMMENDATION

In conclusion, Planning Staff recommends approval of the proposed site plan for 1931 Cleveland Road with the following conditions:

- 1. Although the applicant has indicated that overflow parking will be available across the street staff recommends restriping the overflow parking area.
- 2. The plan be revised, for staff approval, showing location and placement of landscape items to be located in landscaped areas, per 1149.09
- 3. Parking blocks shall be utilized for the most southern spaces in the new parking are located at the North West portion of the site and a 3' landscaped strip shall be installed above mentioned spaces and the existing parking to the south.
- 4. The lighting shall be in conformance with section 1149.10 and a revised cut sheet shall be submitted for staff approval that shows the lens being parallel to the ground.

GENERAL NOTES

All work and materials, unless otherwise noted, shall be in accordance with the current State of Ohio Department of Transportation Construction and Material Specifications including all supplements thereto, and the current Construction and Materials Specifications of the City of Sandusky Engineering Department. Zoning and site plan shall conform to the standards and recommendations of the zoning ordinance of City of Sandusky, latest issuance and revision.

All traffic control devices, signs and markings shall conform to the current Ohio Manual of Uniform Traffic Control Devices and City of Sandusky Engineering Department standards and specifications.

MODIFICATIONS:

Any modifications or changes to the work as shown on the drawings must have prior written approval of the owner and the City of Sandusky Engineer's office, as applicable.

1.0 UTILITIES ADJUSTMENT:

Any and all work required for the adjustment of public and private utilities shall be done at the expense of the Contractor, including City utilities which shall be adjusted by contractor with the

1.2 CALCULATION OF QUANTITIES:

Payment for all work under this contract shall be on a lump sum price basis for work shown on the plans and described in the plans and specifications

Any clearing and grubbing shall be incidental to excavation and embankment for the project and included in the cost thereof.

Any removals of existing pipe, tile, structures, or pavement shall be included in the various items and included in the cost thereof

1.6 UNDERGROUND UTILITIES:

The location of the utilities shown on the plans was established from records and from field survey of above ground facilities. Contractor shall investigate and locate all existing utilities within his work area, whether or not said utilities are shown or indicated on this plan, and take all necessary precautions to protect said utilities. Contractor acknowledges and further agrees by contracting for the work shown on these plans to indemnify Owner, and Engineer in his capacity to provide design, surveying and construction layout, against any and all claims arising from damage to existing utilities, above or below ground, caused by himself or his subcontractors.

1.7 UTILITIES NOTIFICATION:

At least two working days prior to commencing construction operations, the Contractor shall notify the Engineer, the registered utility protection service, and the owners of eachunderground and overhead utility facility shown on the plan or existing on the property.

The owners of underground utility facilities shall, within 48 hours, excluding Saturdays, Sundays and legal holidays, after notice is received, stake, mark, or otherwise designate the location of the underground utility facilities in the construction area in such a manner as to indicate their course together with the approximate depth at which they were installed. The marking or locating shall be coordinated to stay approximately two days ahead of the planned construction.

Agencies and utility companies to be notified include but are not limited to the following:

Sanitary Sewer and Water: City of Sandusky Engineering Department

> 222 Meigs Street Sandusky, Ohio 44870 (419) 627-5829

Telephone:

AT&T Room 207 121 North Huron Toledo, Ohio 43624 (419) 245-5004

Electric: First Energy (Ohio Edison) 2508 West Perkins Avenue

Sandusky, Ohio 44870

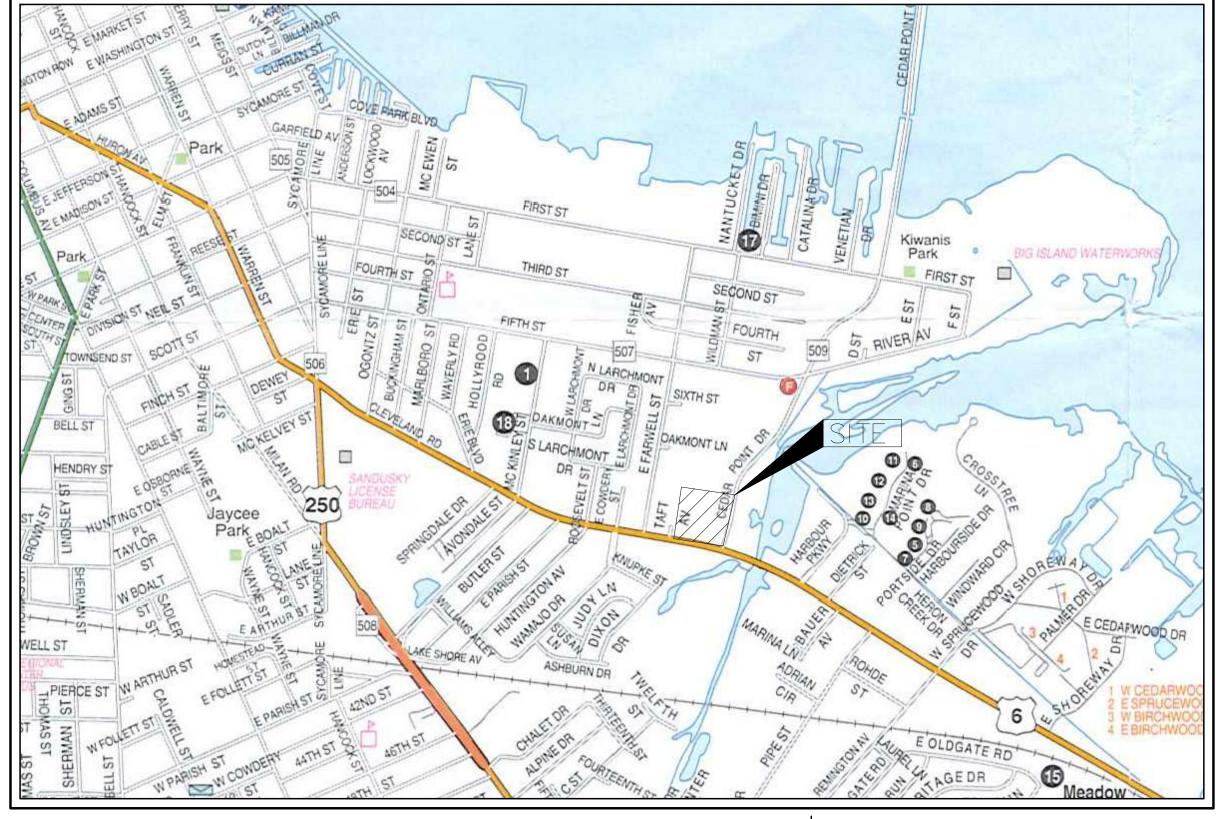
(419) 627-6881

Natural Gas: Columbia Gas of Ohio, Inc.

1800 Broad Avenue Findlay, Ohio 45840 (419) 427-3230

Cable TV:

Buckeye Cablesystem 409 East Market Street Sandusky, Ohio 44870 (419) 627-0800



GENERAL DETAILS

INDEX OF SHEETS: COVER SHEET

EXISTING SITE & DEMOLITION PLAN OVERALL SITE PARKING & CIRCULATION PLAN HOTEL SITE PLAN PARKING LOT SITE PLAN **HOTEL GRADING AND UTILITY PLAN (1 OF 2) HOTEL GRADING AND UTILITY PLAN (2 OF 2)** PARKING LOT GRADING AND UTILITY PLAN LANDSCAPING AREAS STORM WATER POLLUTION AND PREVENTION PLAN STORM WATER POLLUTION AND PREVENTION SPECIFICATIONS (1 OF 2)

STORM WATER POLLUTION AND PREVENTION SPECIFICATIONS (2 OF 2)

LEGEND: STORM SEWER MANHOLE FIBER OPTIC LINE STORM SEWER LINE OVERHEAD ELECTRIC MONUMENT BOX AIR CONDITIONING UNIT **GUY WIRE** UTILITY POLE WITH TRANSFORMER 1-MAST LIGHT POLE UTILITY POLE WITH LIGHT 1-MAST 4-LIGHT POLE

Ohio Utilities Protection Service

UNDERGROUND UTILITIES CONTACT BOTH SERVICES CALL TWO WORKING DAYS BEFORE YOU DIG



LOCATION MAP

1-800-362-2764 (TOLL FREE)

OHIO UTILITIES PROTECTIVE SERVICE NON-MEMBERS MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE CALL: 1-800-925-0988

CONTROL POINT #1

MAG NAIL SET IN PAVEMENT NORTHWEST OF THE NORTHWEST CORNER OF THE EXISTING HOLIDAY INN EXPRESS BUILDING. N: 1918937.9004 E: 647270.9557

CONTROL POINT #2

MAG NAIL SET IN PAVEMENT NORTHWEST OF THE NORTHWEST CORNER OF THE EXISTING HOLIDAY INN EXPRESS BUILDING. N: 1918787.9410 E: 647293.3190

CONTROL POINT #3

MAG NAIL SET IN PAVEMENT BETWEEN EXISTING QUALITY INN BUILDING AND HOLIDAY INN EXPRESS. N: 1918773.4930 E: 647112.0920

ZONING TABLE:

- GB: GENERAL BUSINESS PROPOSED

NO CHANGE

BM #1 **(-)**

MAG NAIL SET IN TOP OF LIGHT POLE FOUNDATION CLOSEST TO THE NORTHWEST CORNER OF THE EXISTING HOLIDAY INN EXPRESS BUILDING. ELEVATION: 582.28 NAVD '88

UTILITY POLE

FEMA FLOOD ZONE:

• FLOOD ZONE: ZONE X AND AE • PANEL NUMBER: 39043C0083D • EFFECTIVE DATE: AUGUST, 28 2008

 ZONE X IS AN AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN. • ZONE AE IS A SPECIAL FLOOD HAZARD AREA SUBJECT TO THE INUNDATION BY THE 1% ANNUAL FLOOD CHANCE.

PRELIMINARY NOT FOR CONSTRUCTION

PLANS PREPARED BY:

JOHN HANCOCK **REGISTERED ENGINEER NO. 39214**

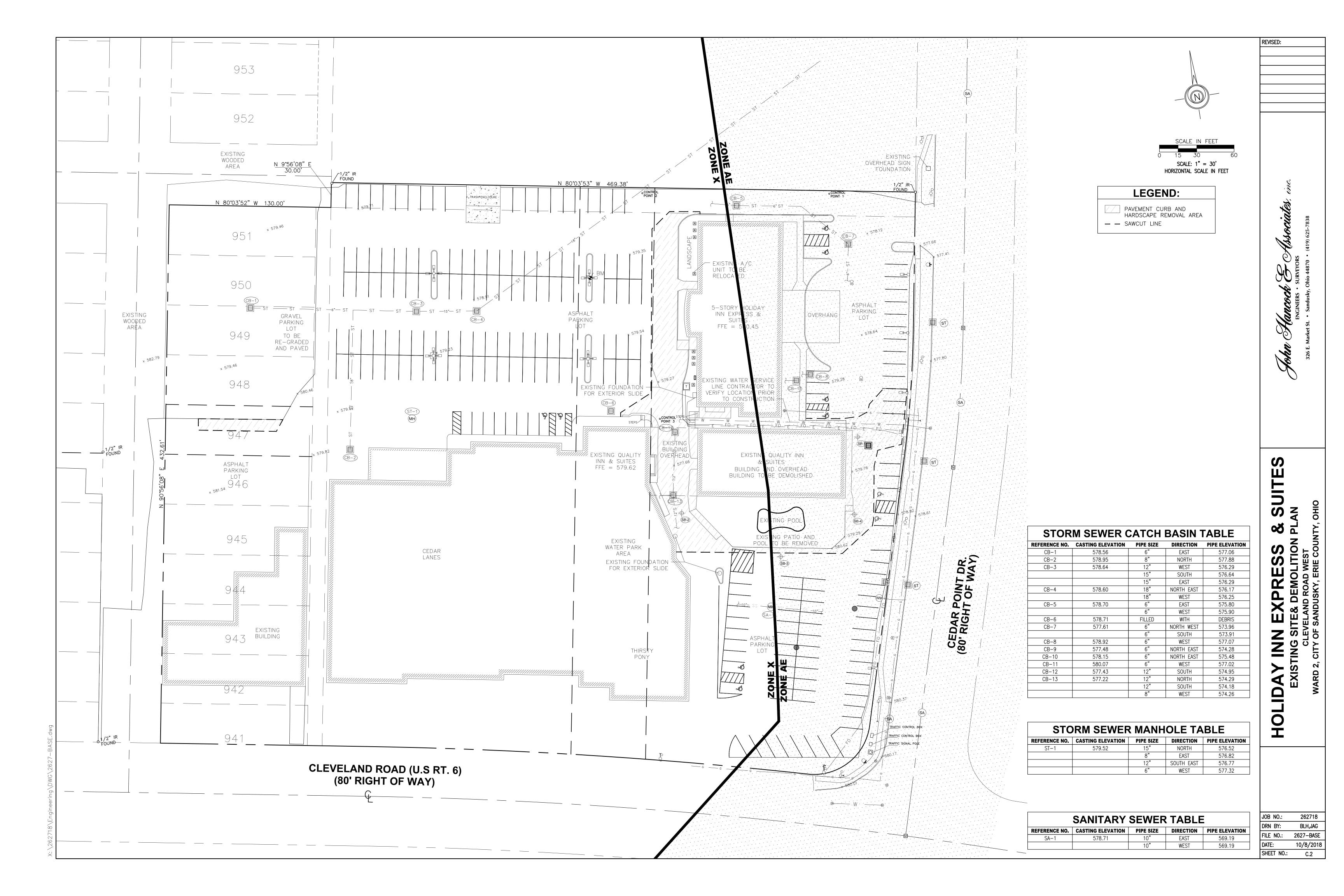
BLH,KMB FILE NO.: 2627-BASE 10/8/2018

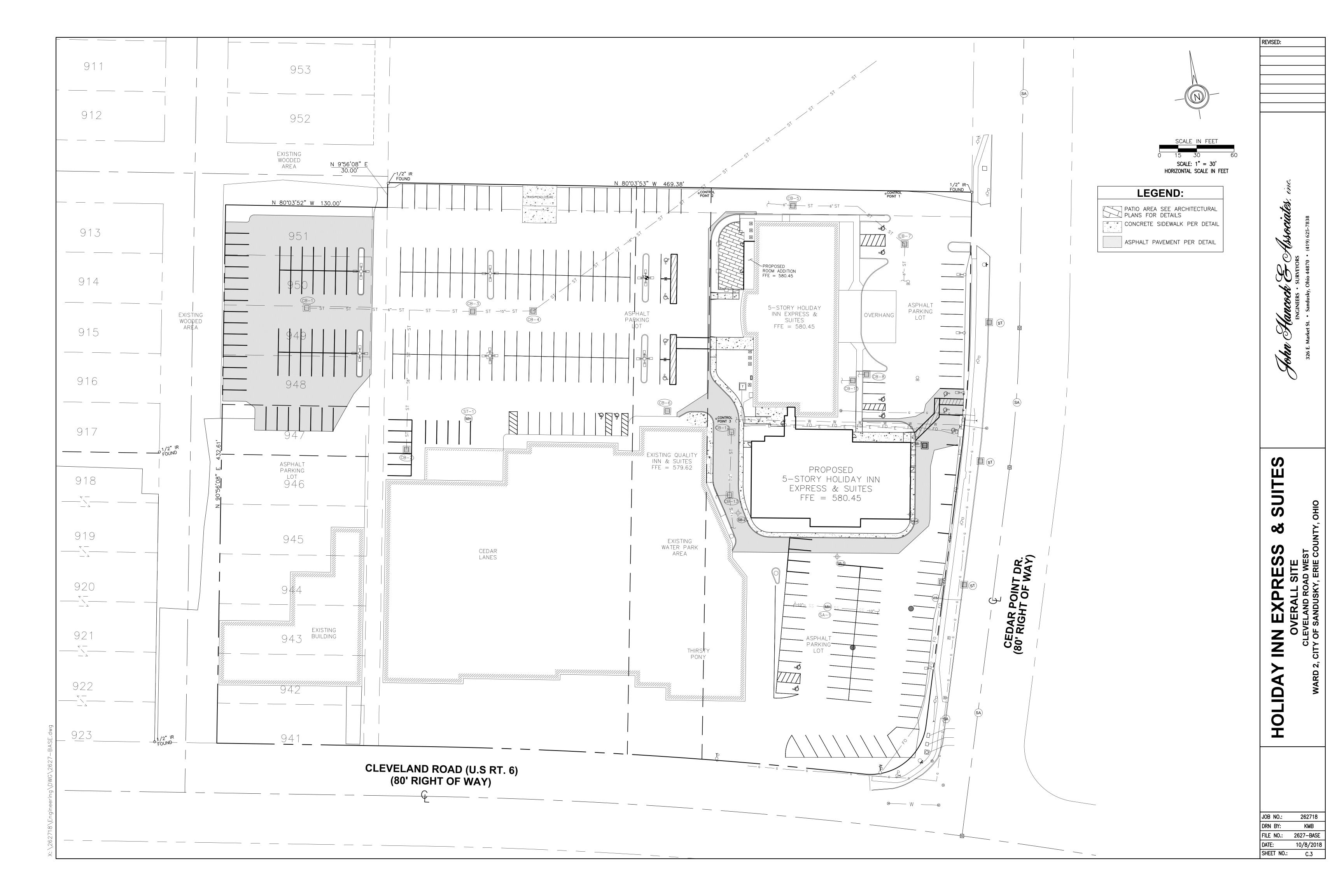
70

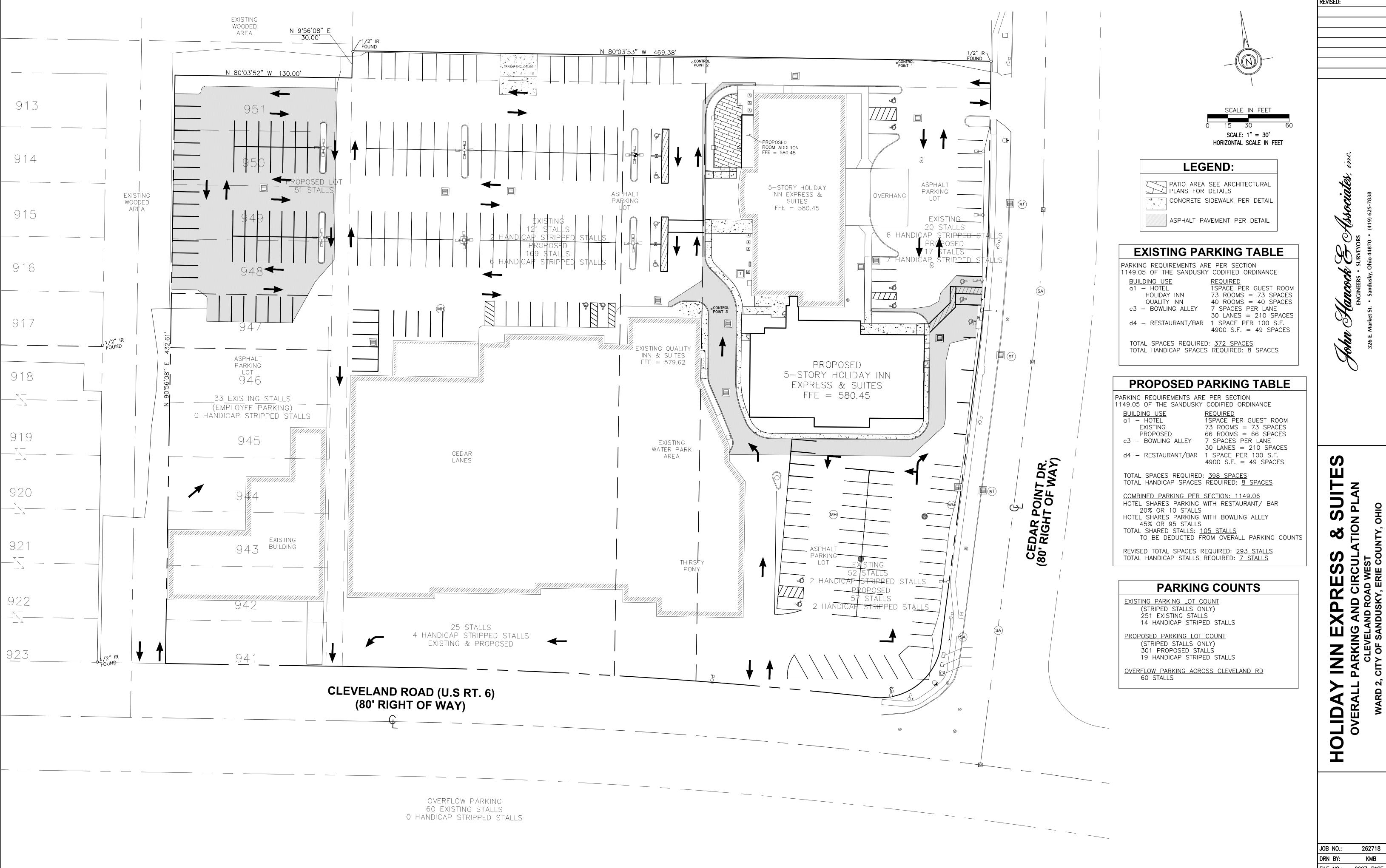
SHEET NO.:

262718

C.1





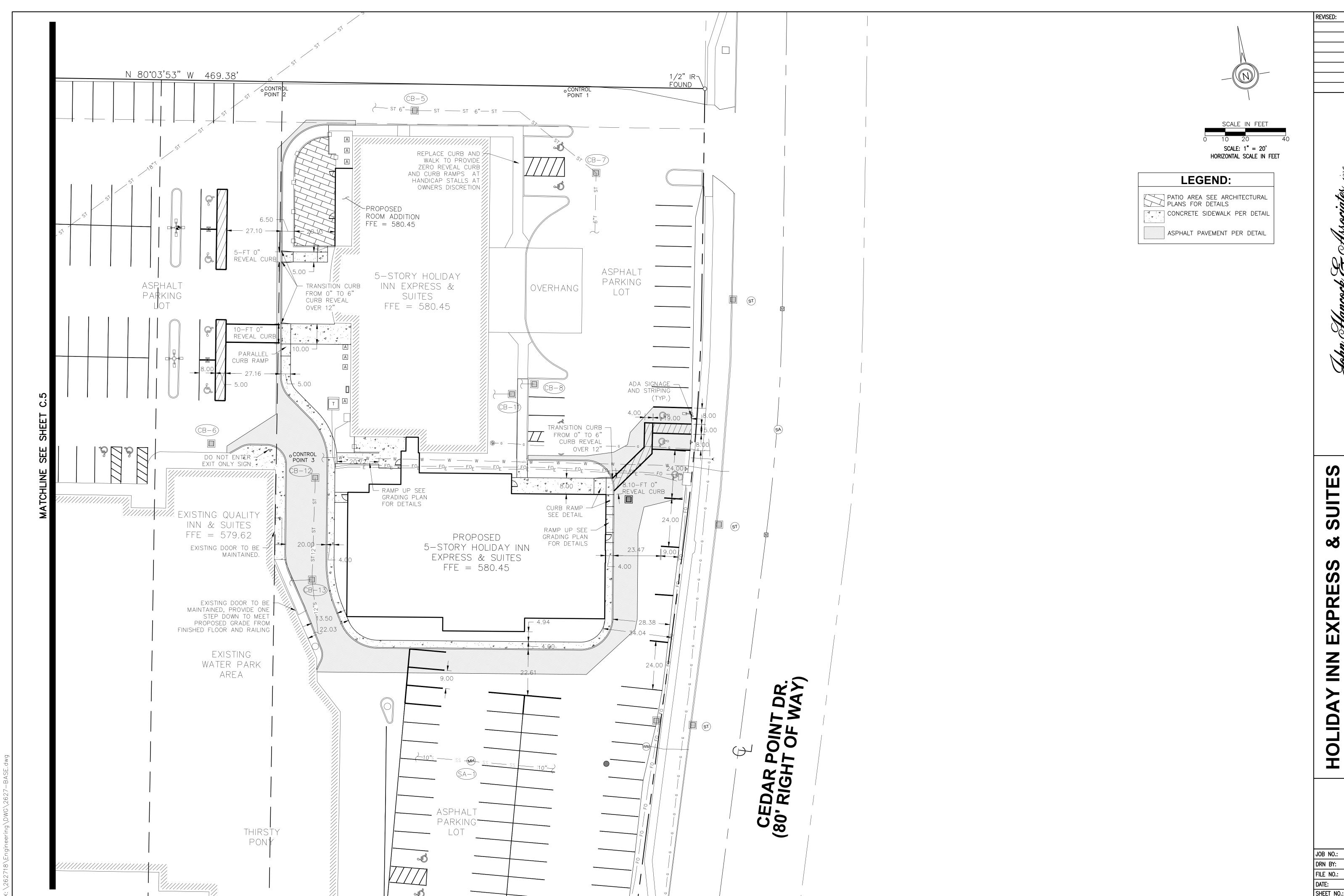


13

262718 KMB FILE NO.: 2627-BASE 10/8/2018

C.3A

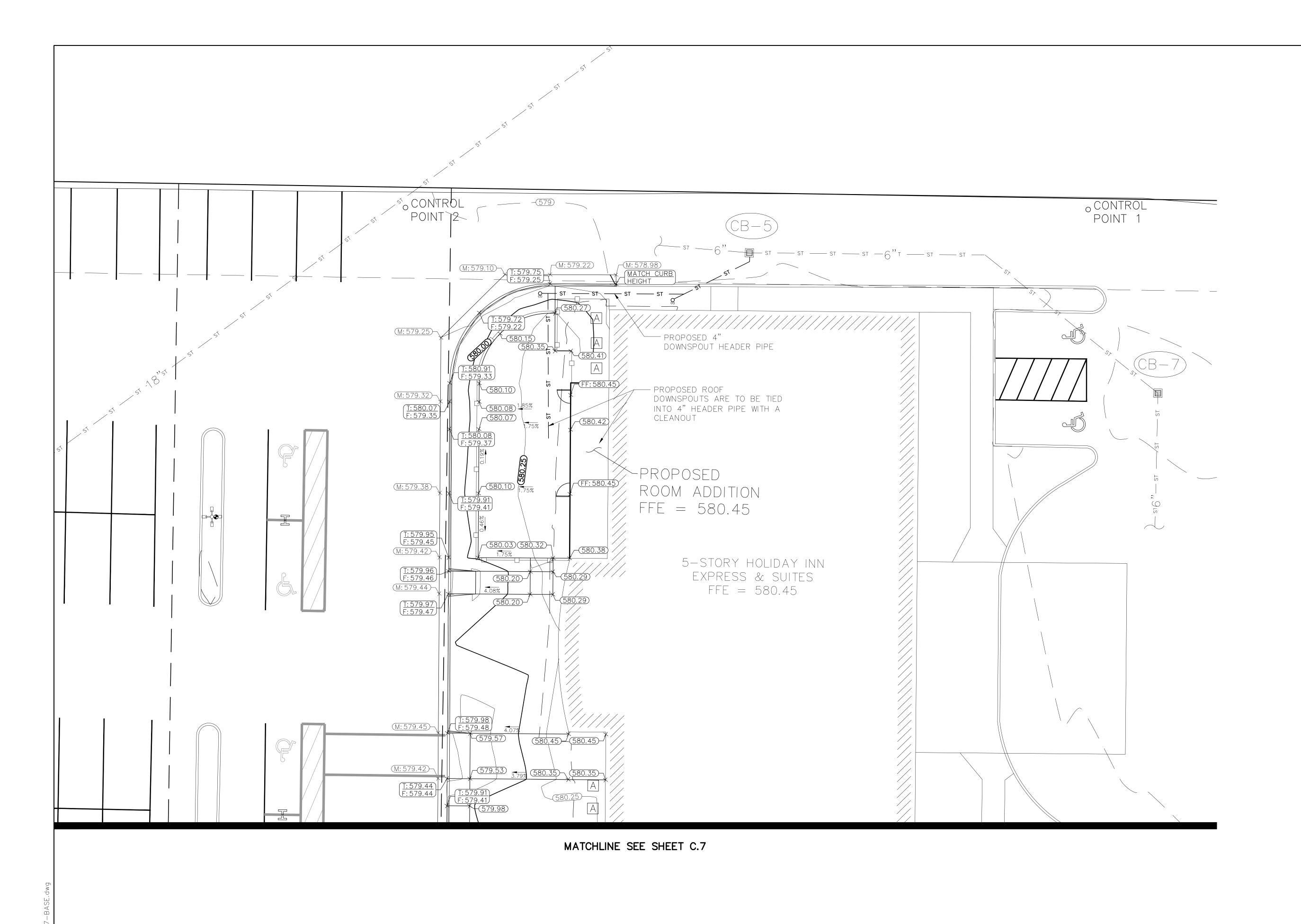
SHEET NO.:



B

262718 KMB FILE NO.: 2627-BASE 10/8/2018 SHEET NO.: C.4





S SUITE:

SCALE IN FEET

SCALE: 1" = 10' HORIZONTAL SCALE IN FEET

LEGEND:

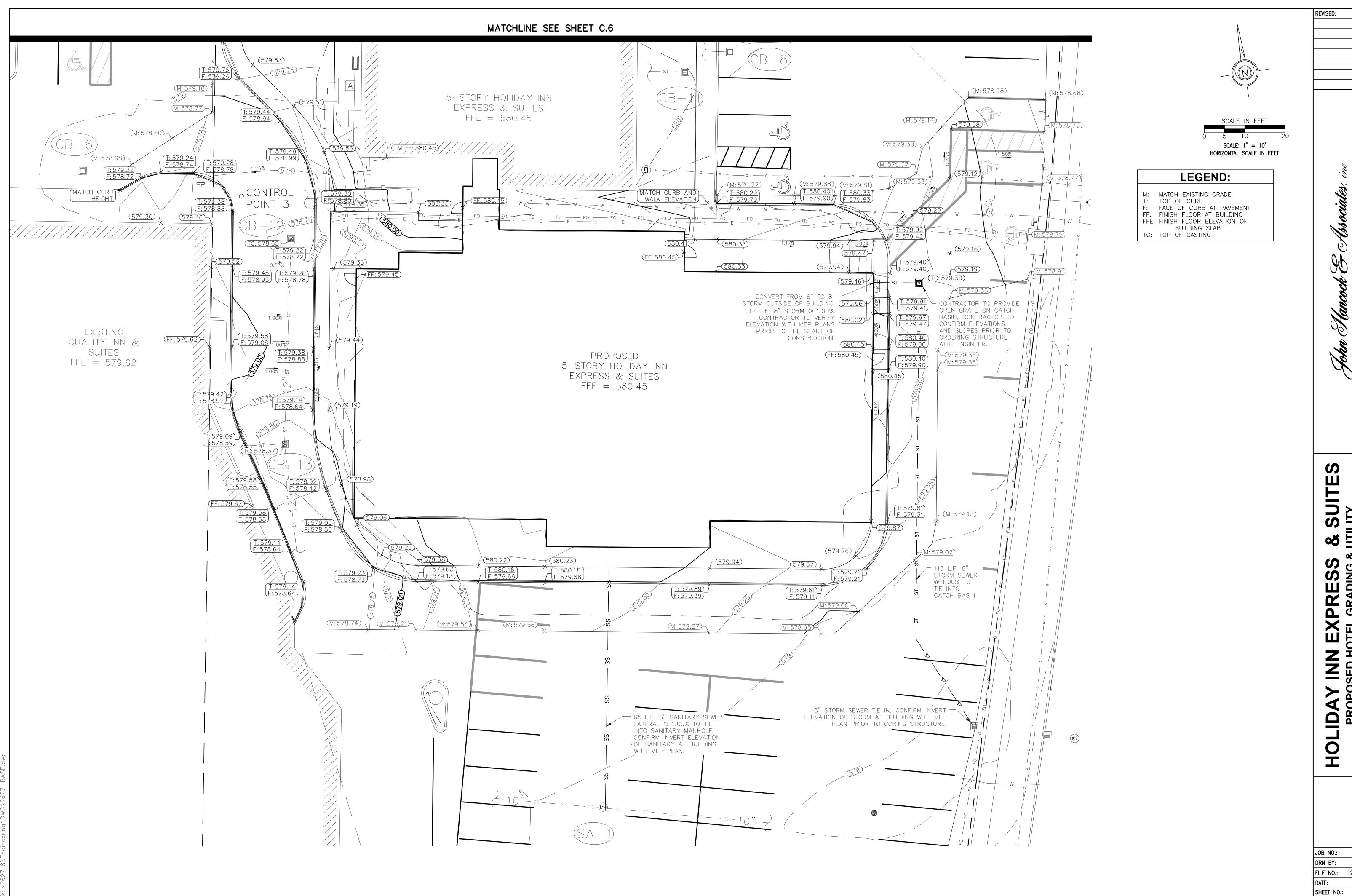
M: MATCH EXISTING GRADE
T: TOP OF CURB
F: FACE OF CURB AT PAVEMENT
FF: FINISH FLOOR AT BUILDING
FFE: FINISH FLOOR ELEVATION OF
BUILDING SLAB

HOLIDAY INN EXPRESS & HOLEL PROPOSED ADDITION GRADING CLEVELAND ROAD WEST WARD 2, CITY OF SANDUSKY, ERIE COUNTY,

262718 KMB FILE NO.: 2627-BASE

DATE: 10/8/2018

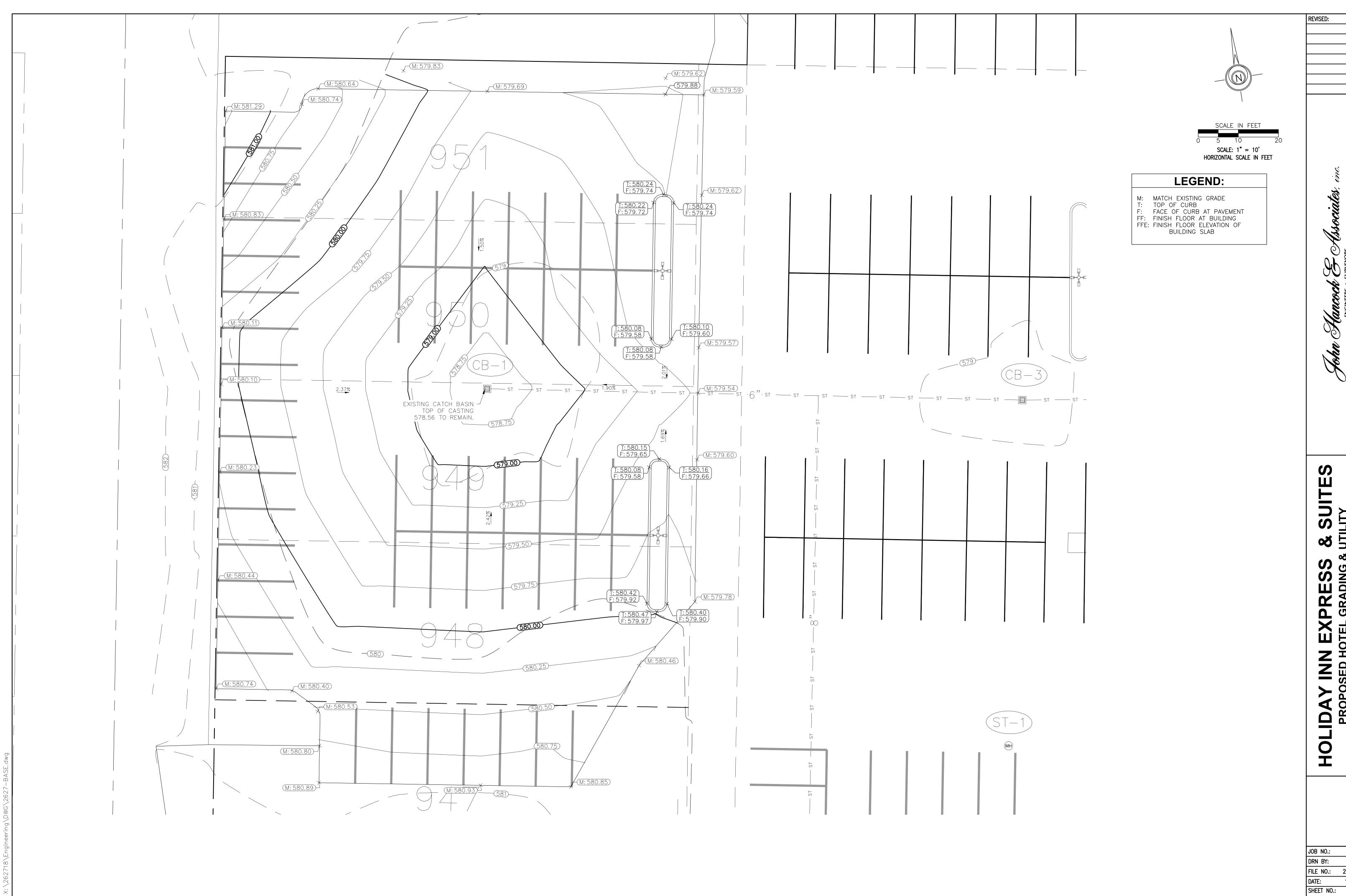
SHEET NO.: C.6 10/8/2018 C.6



& SUITE:

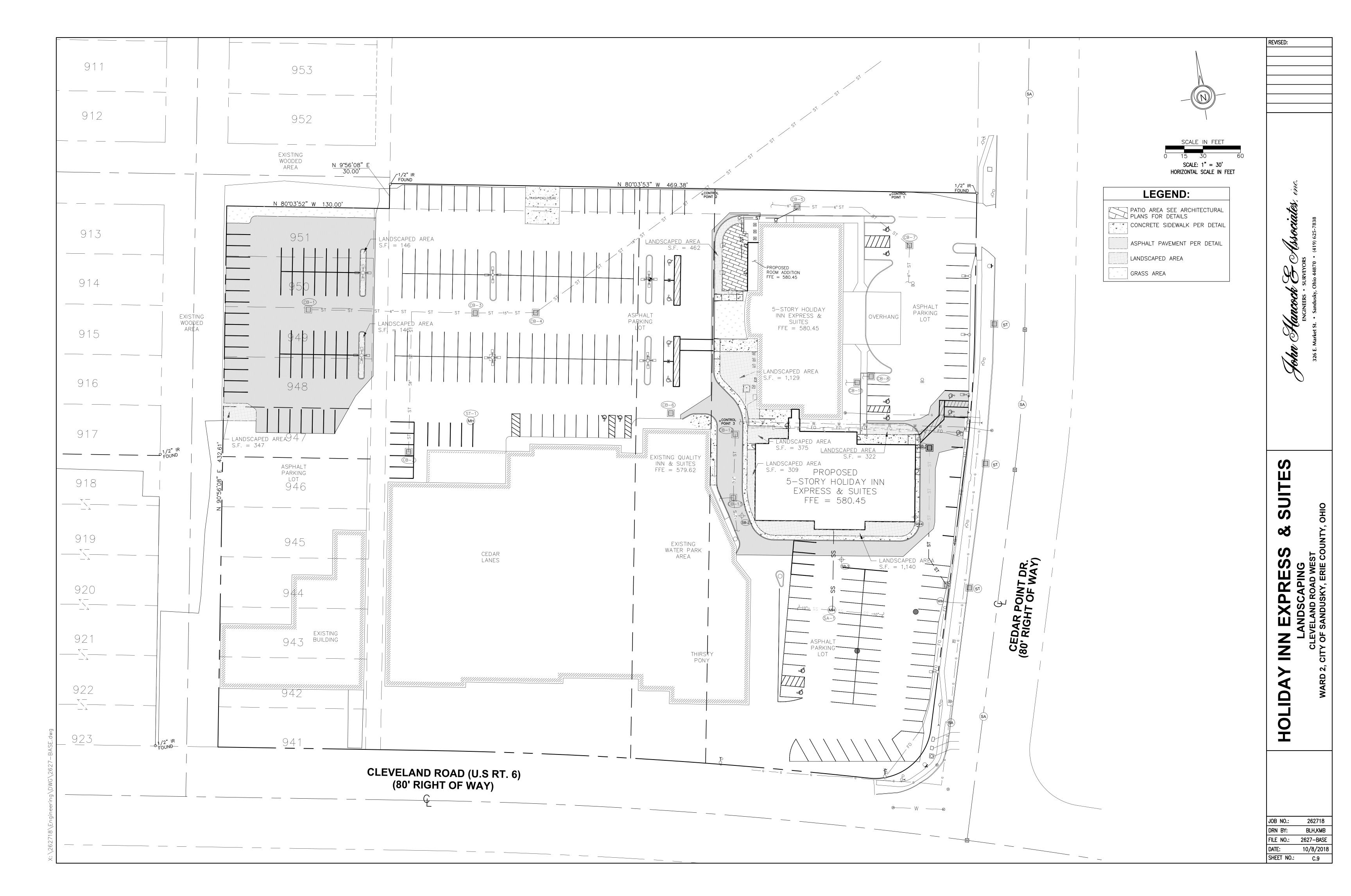
HOLIDAY INN EXPRESS & PROPOSED HOTEL GRADING & UT CLEVELAND ROAD WEST WARD 2, CITY OF SANDUSKY, ERIE COUNTY

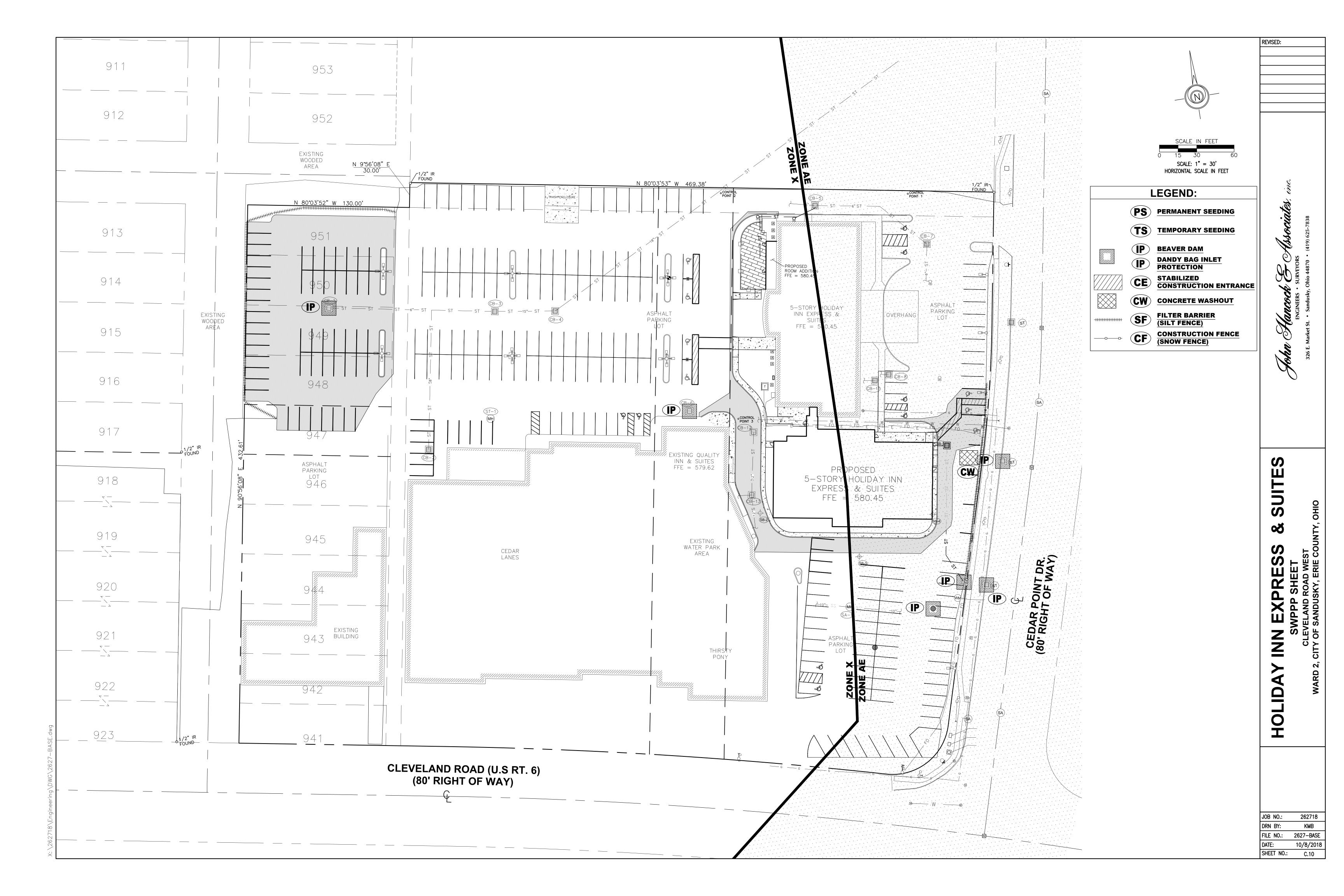
262718 FILE NO.: 2627-BASE 10/8/2018 C.7



HOLIDAY INN EXPRESS & SUITE
PROPOSED HOTEL GRADING & UTILITY
CLEVELAND ROAD WEST
WARD 2, CITY OF SANDUSKY, ERIE COUNTY, OHIO

262718 KMB FILE NO.: 2627-BASE 10/8/2018 C.8





- 2. CONTRACTOR AND OWNER SHALL DESIGNATE AN AUTHORIZED REPRESENTATIVE FOR MONITORING AND INSPECTING THE EROSION CONTROL MEASURES. THE INSPECTOR FOR THIS PROJECT IS TO BE SELECTED BY CONTRACTOR
- 3. CONTRACTOR SHALL ABIDE BY ALL APPROPRIATE REGULATIONS SET FORTH BY CITY OF SANDUSKY & OHIO EPA FOR EROSION AND SEDIMENT CONTROL MEASURES.
- 4. PRIOR TO MASS GRADING, ALL SILT FENCE EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCING THAT PORTION OF WORK. GRADING AND SLOPES SHALL BE CONSTRUCTED TO MINIMIZE SURFACE RUN-OFF. WHERE POSSIBLE, SURFACES SHALL BE GRADED TOWARDS SEDIMENT TRAPS & DETENTION PONDS OR SWALES.
- 5. GRADED SLOPES AND DENUDED AREAS GREATER THEN 5% SLOPE SHALL BE TEMPORARILY STABILIZED AND MAINTAINED THROUGHOUT CONSTRUCTION.
- 6. CONTRACTOR SHALL ESTABLISH PERMANENT VEGETATION WITHIN THE LIMITS OF CONSTRUCTION.

SILT FENCE

SILT FENCE IS A SEDIMENT-TRAPPING PRACTICE INSTALLED UTILIZING A GEOTEXTILE FENCE, TOPOGRAPHY AND VEGETATION TO CAUSE SEDIMENT DEPOSITION. SILT FENCE REDUCES RUNOFF'S ABILITY TO TRANSPORT SEDIMENT BY PONDING RUNOFF AND DISSIPATING SMALL RILLS OF CONCENTRATED FLOW INTO UNIFORM SHEET FLOW.

SILT FENCE SHALL BE INSTALLED TO CONTROL OFF SITE DRAINAGE IF APPLICABLE.

SPECIFICATIONS FOR SILT FENCE

- 1. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
- 2. ALL SILT SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER IS NOT CONCENTRATED AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
- 3. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.
- 4. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE. 5. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE)
- UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
- 6. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND
- 7. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE, WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
- 8. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8 INCHES OF CLOTH ARE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LIE
- ON THE BOTTOM OF THE 6 INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED. 9. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.
- 10. MAINTENANCE SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1.) THE LAYOUT OF SILT FENCE SHALL BE CHANGED. 2.) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3.) OTHER PRACTICES SHALL BE INSTALLED.

CRITERIA FOR SILT FENCE MATERIAL:

1. FENCE POSTS — THE LENGTH SHALL BE MINIMUM OF 32 INCHES LONG. WOOD POSTS WILL BE 2-BY-2 INCH HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FEET. 2. SILT FENCE FABRIC (SEE DETAIL).

STORM DRAIN INLET PROTECTION

STORM DRAIN INLET PROTECTION CONSISTS OF A GEOTEXTILE BARRIER SUPPORTED AROUND OR ACROSS A STORM INLET. IT IS USED TO PREVENT SEDIMENT-LADEN WATER FROM ENTERING A STORM DRAIN SYSTEM. IT REDUCES THE RATE AT WHICH SEDIMENT-LADEN WATER MAY ENTER AN INLET, THEREBY CAUSING PONDING AND SETTLING OF SEDIMENT.

SPECIFICATIONS FOR CURB INLET PROTECTION

- 1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
- 2. THE WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC AND STONE. IT SHALL BE A CONTINUOUS PIECE WITH A MINIMUM OF 4' TO 6' LONGER THAN THE THROAT LENGTH OF THE INLET, 2 FEET ON EACH SIDE. GEOTEXTILE FABRIC AND WIRE MESH SHALL BE ANCHORED 2' BEHIND THE CURB 3. GEOTEXTILE CLOTH SHALL HAVE THE EQUIVALENT OPENING SIZE (EOS) OF 20-40 SIEVE AND BE RESISTANT
- TO SUNLIGHT. IT SHALL BE AT LEAST THE SAME SIZE AS WIRE MESH. 4. THE WIRE MESH AND GEOTEXTILE CLOTH SHALL BE FORMED TO THE CONCRETE GUTTER AND AGAINST THE
- FACE OF THE CURB ON BOTH SIDES OF THE INLET. 5. TWO-INCH STONE SHALL BE PLACED OVER THE WIRE MESH AND GEOTEXTILE IN SUCH MANNER AS TO
- PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE CLOTH.

SPECIFICATIONS FOR INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS

- 1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
- 2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
- 3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4-INCH CONSTRUCTION-GRADE LUMBER. THE 2-BY-4-INCH POSTS SHALL BE DRIVEN 1 FOOT INTO THE GROUND AT THE FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4-INCH FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
- 4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
- 5. GEOTEXTILE SHALL HAVE THE EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18 INCHES BELOW THE INLET NOTCH ELEVATION, THE GEOTEXTILE SHALL OVERLAP
- ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6 INCH LAYERS UNTIL THE EARTH IS EVEN
- WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES. 7. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT A DEPRESSION AND RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTING POND

CONSTRUCTION ENTRANCE

A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF AGGREGATE OVER A GEOTEXTILE BASE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.

THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

SPECIFICATIONS FOR CONSTRUCTION ENTRANCE

- 1. STONE SIZE TWO-INCH STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
- 2. LENGTH THE CONSTRUCTION ENTRANCE SHALL BE AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 60 FEET. (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30-FOOT MINIMUM LENGTH APPLIES).
- 3. THICKNESS THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK. 4. WIDTH - THE ENTRANCE SHALL BE AT LEAST 10 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS
- WHERE INGRESS OR EGRESS OCCURS. BEDDING — A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE
- A GRAB TENSILE STRENGTH OF AT LEAST 200 LB. AND MULLEN BURST STRENGTH OF AT LEAST 190 LB. 6. CULVERT — A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
- WATER BAR A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO
- 8. MAINTENANCE TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPPING AND
- 9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

CONSTRUCTION SITE MULCHING

APPLYING A PROTECTIVE LAYER OF MULCH, USUALLY OF STRAW, TO BARE SOIL IS USED TO ABATE EROSION BY SHIELDING IT FROM RAINDROP IMPACT TO HELPING ESTABLISH VEGETATION BY CONSERVING MOISTURE AND CREATING FAVORABLE CONDITIONS FOR SEEDS TO GERMINATE.

SPECIFICATIONS FOR MULCHING

- 1. MULCH AND/OR OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 14 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
- 2. MULCH SHALL CONSIST OF THE FOLLOWING: - STRAW - STRAW SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR
- 90 LB. PER 1,000 SQUARE FEET (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND PLACE TWO 45 LB. BALES OF STRAW IN EACH
- HYDROSEEDERS WOOD-CELLULOSE FIBER SHOULD BE USED AT 2,000 LB. PER ACRE OR 46 LB. PER 1,000 SQUARE FEET.
- OTHER OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S
- RECOMMENDATIONS OR WOOD CHIPS APPLIED 10-20 TONS PER ACRE. 3. MULCH ANCHORING - MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS OF ANCHORING MULCH.
- MECHANICAL USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY, BE LEFT LONGER THAN 6 INCHES.
- MULCHING NETTINGS USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. FOLLOW ALL PLACEMENTS AND ANCHORING SUGGESTIONS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH
- ASPHALT EMULSION FOR STRAW MULCH, APPLY AT THE RATE OF 160 GALLONS PER ACRE (0.1 GAL/SY) INTO THE MULCH AS BEING APPLIED OR AS RECOMMENDED BY THE MANUFACTURER – SYNTHETIC BINDERS – FOR STRAW MULCH, SYNTHETIC BINDER SUCH AS ACRYLIC (AGRI—TAC), DCA—70, PETROSET,
- TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. — WOOD—CELLULOSE FIBER — WOOD CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF

750 LB. PER ACRE. THE WOOD-CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB. PER ACRE. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. PER 100 GALLONS OF WOOD-CELLULOSE FIBER

CONSTRUCTION SITE SEEDING:

PERMANENT SEEDING INCLUDES THE SEEDBED PREPARATION, SEEDING AND THE ESTABLISHMENT OF PERENIAL VEGETATION USED TO PERMANENTLY STABILIZE SOIL, PREVENT SEDIMENT POLLUTION, REDUCE RUNOFF BY PROMOTING INFILTRATION, AND PROVIDE STORMWATER QUALITY BENEFITS OFFERED BY DENSE VEGETATION.

SPECIFICATIONS FOR PERMANENT SEEDING

- 1. A SUBSOILER, PLOW OR OTHER IMPLEMENT SHALL BE USED TO REDUCE SOIL COMPACTION AND ALLOW MAXIMUM INFILTRATION. (MAXIMIZING INFILTRATION WILL HELP CONTROL BOTH RUNOFF RATE AND WATER QUALITY.) SUBSOILING SHALL NOT BE DONE ON SLIP-PRONE AREAS WHERE SOIL PREPARATION SHOULD BE LIMITED TO WHAT IS NECESSARY FOR ESTABLISHING VEGETATION.
- 2. THE SITE SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR
- SEEDBED PREPARATION AND SEEDING. 3. RESOIL SHALL BE APPLIED WHERE NEEDED TO ESTABLISH VEGETATION.

SEEDBED PREPARATION

- 1. LIME AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED TO ACID SOIL AS RECOMMENDED BY A SOIL TEST, IN LIEU OF A SOIL TEST, LIME SHALL BE APPLIED AT THE RATE 100 LB. PER 1,000
- SQUARE FEET OR 2 TONS PER ACRE. 2. FERTILIZER - FERTILIZER SHALL BE APPLIED AS RECOMMENDED BY A SOIL TEST, IN LIEU OF A SOIL TEST
- FERTILIZER SHALL BE APPLIED AT A RATE OF 12 LB. PER 1,000 SQUARE FEET OR 500 LB. PER ACRE OF 10-10-10 OR 12-12-12 ANALYSIS. 3. THE LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL WITH A DISK HARROW, SPRING—TOOTH HARROW,
- OR OTHER SUITABLE FIELD IMPLEMENT TO A DEPTH OF 3 INCHES. ON SLOPING LAND, THE SOIL SHALL BE WORKED ON THE CONTOUR.

SEEDING DATES AND SOIL CONDITIONS

SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 OR AUGUST 1 TO SEPTEMBER 30. THESE SEEDING DATES ARE IDEAL BUT. WITH THE USE OF ADDITIONAL MULCH AND IRRIGATION, SEEDINGS MAY BE MADE ANY TIME THROUGHOUT THE GROWING SEASON. TILLAGE/SEEDBED PREPARATION SHOULD BE DONE WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. FOR WINTER SEEDING, SEE THE FOLLOWING SECTION ON DORMANT SEEDING.

<u>DORMANT SEEDINGS</u>

- 1. SEEDINGS SHALL NOT BE PLANTED FROM OCTOBER 1 THROUGH NOVEMBER 20, DURING THIS PERIOD, THE SEEDS ARE LIKELY TO GERMINATE BUT PROBABLE WILL NOT BE ABLE TO SURVIVE THE WINTER. 2. THE FOLLOWING METHODS MAY BE USED FOR "DORMANT SEEDING":
- FROM OCTOBER 1 THROUGH NOVEMBER 20, PREPARE THE SEEDBED, ADD THE REQUIRED AMOUNTS OF LIME AND FERTILIZER, THEN MULCH AND ANCHOR.
- FROM NOVEMBER 20 THROUGH MARCH 15, WHEN SOIL CONDITIONS PERMIT, PREPARE THE SEEDBED, LIME AND FERTILIZER, APPLY THE SELECTED SEED MIXTURE, MULCH AND ANCHOR, INCREASE RATES BY 60% FOR THIS TYPE OF SEEDING.
- APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRO—SEEDER (SLURRY MAY INCLUDE SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED.
- WHERE FEASIBLE, EXCEPT WHEN A CULTIPACKER TYPE SEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A CULTIPACKER, ROLLER, OR LIGHT DRAG. ON SLOPING LAND, SEEDING OPERATIONS SHOULD BE ON THE CONTOUR WHERE FEASIBLE.

<u>MULCHING</u>

- 1. MULCH MATERIAL SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION. DORMANT SEEDING SHALL BE MULCHED.
- 2. MATERIALS: — STRAW — IF STRAW IS USED, IT SHALL BE UNROTTED SMALL—GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 LB. PER 1,000 SQUARE FEET (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED, FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS
- HYDROSEEDERS IF WOOD-CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB. PER ACRE OR 46 LB. PER 1,000 SQUARE FEET.

AND SPREAD TWO 45 LB. BALES OF STRAW IN EACH SECTION.

- OTHER OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED 6 TONS PER ACRE. 3. STRAW MULCH ANCHORING METHODS — STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER.
- MECHANICAL A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY, BE LEFT LONGER THAN 6 INCHES. MULCH NETTINGS - NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS CONCENTRATED RUNOFF AND ON
- ASPHALT EMULSION ASPHALT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER OR AT THE RATE OF 160 GALLONS PER ACRE. – SYNTHETIC BINDERS – SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI—TAC), DCA—70, PETROSET, TERRA
- TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. - WOOD-CELLULOSE FIBER - WOOD CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB. PER ACRE. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL

DAMAGE FROM RUNOFF.

1. PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS AS NEEDED FOR ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH. 2. EXCESSIVE IRRIGATION RATES SHALL BE AVOIDED AND IRRIGATION MONITORED TO PREVENT EROSION AND

CONTAIN A MAXIMUM OF 50 LB. PER 100 GALLONS OF WOOD-CELLULOSE FIBER.

<u>SPECIFICATIONS FOR MAINTENANCE OF PERMANENT SEEDING</u>

- 1. PERMANENT SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF PLANTING. SEEDED AREAS SHALL BE INSPECTED FOR FAILURE AND VEGETATION REESTABLISHMENT AS NEEDED. DEPENDING ON SITE CONDITIONS, IT MAY BE NECESSARY TO IRRIGATE, FERTILIZE, OVERSEED, OR REESTABLISH PLANTINGS IN ORDER TO PROVIDE PERMANENT VEGETATION FOR ADEQUATE EROSION CONTROL.
- 2. MAINTENANCE FERTILIZATION RATES SHALL BE ESTABLISHED BY SOIL TEST RECOMMENDATIONS OR BY USING THE RATES SHOWN ON THE FOLLOWING TABLE.

TEMPORARY SEEDING

TEMPORARY SEEDING PROVIDES EROSION CONTROL ON AREAS BETWEEN OPERATIONS. GRASSES WHICH ARE QUICK GROWING ARE SEEDED AND USUALLY MULCHED TO PROVIDE PROMPT, TEMPORARY SOIL STABILIZATION. IT EFFECTIVELY MINIMIZES THE AREA OF A CONSTRUCTION SITE PRONE TO EROSION AND SHOULD BE USED EVERYWHERE THE SEQUENCE OF CONSTRUCTION OPERATIONS ALLOWS VEGETATION TO BE ESTABLISHED.

- 1. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE
- INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF CONSTRUCTION SITE. 2. TEMPORARY SEEDING SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR. THESE IDLE AREAS SHOULD BE SEEDED AS SOON AS POSSIBLE AFTER GRADING OR SHALL BE SEEDED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY
- SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS. 3. THE SEEDED BED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
- HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE. 4. SOIL AMENDMENTS — APPLICATION OF TEMPORARY VEGETATION SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY REQUIRE THE USE OF SOIL AMENDMENT. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
- 5. SEEDING METHOD SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER AND A CULTIPACKER. IF HYDROSEEDER IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON SITE, AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

- 1. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDING MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.
- 2. MATERIALS: - STRAW - IF STRAW IS USED, IT SHALL BE UNROTTED SMALL-GRAIN STRAW APPLIED AT THE RATE OF 2 TONS PER ACRE OR 90 LB. PER 1,000 SQUARE FEET (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED, FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS
- AND SPREAD TWO 45 LB. BALES OF STRAW IN EACH SECTION. - HYDROSEEDERS - IF WOOD-CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB. PER ACRE OR 46 LB. PER 1,000 SQUARE FEET.
- OTHER OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED 6 TONS PER ACRE.
- 3. STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER.

ANCHORING METHODS:

- 1. MECHANICAL A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT, GENERALLY BE LEFT LONGER THAN 6 INCHES.
- MULCH NETTINGS NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS CONCENTRATED RUNOFF AND ON
- ASPHALT EMULSION ASPHALT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURER OR AT THE RATE OF 160 GALLONS PER ACRE.
- SYNTHETIC BINDERS SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI—TAC), DCA—70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER. - WOOD-CELLULOSE FIBER - WOOD CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB. PER ACRE. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB. PER 100 GALLONS OF WOOD-CELLULOSE FIBER.

INSPECTION CODE:

AT MINIMUM, ALL EROSION CONTROL AND SEDIMENT CONTROLS ON THE SITE ARE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD.

ONLY QUALIFIED INSPECTION PERSONNEL (PROVIDED BY THE GENERAL CONTRACTOR) SHALL CONDUCT A WEEKLY INSPECTION OF THE CONSTRUCTION SITE, AND AFTER A STORM EVENT GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD, TO VERIFY THAT STABILIZATION AND STRUCTURAL CONTROLS ARE PERFORMING PROPERLY. INSPECTION PERSONNEL SHALL ALSO DETERMINE IF ADDITIONAL CONTROLS ARE REQUIRED. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM.

DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS

LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE

REPRODUCIBLE INSPECTION FORMS ARE PROVIDED ON THE OHIO EPA WEB SITE FOR USE BY THE GENERAL CONTRACTOR (COORDINATE WITH THE ENGINEER). INSPECTION CHECKLIST TO BE COMPLETED AND SIGNED BY THE INSPECTOR AFTER EVERY INSPECTION. INSPECTION RECORDS TO BE KEPT FOR 3 YEARS AFTER TERMINATION OF CONSTRUCTION ACTIVITIES.

BEST MANAGEMENT PRACTICES (BMPs): FOR BMPs NOT MEETING THE INTENDED FUNCTION, A NEW BMP TO BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

MISSING BMPs REQUIRED FOR INSTALLATION BY THE SWP3 TO BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. QUALIFIED INSPECTOR FOR THIS PROJECT IS TO BE SELECTED BY CONTRACTOR.

CONCRETE TRUCKS

TECHNIQUES TO LIMIT CONCRETE SPOILAGE RUNOFF.

CONCRETE TRUCKS WILL ONLY BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WATER

THE OWNER RESERVES THE RIGHT TO REQUIRE THE GENERAL CONTRACTOR TO EMPLOY SEDIMENT CONTROL

CONSTRUCTION & DEMOLITION DEBRIS

WASH WATER IN AREAS DESIGNATED BY THE OWNER OR ITS DESIGNATED REPRESENTATIVE.

ALL CONSTRUCTION & DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE 3714, OR

RUN-OFF COEFFICIENTS:

PRE-CONSTRUCTION: C=0.88 POST-CONSTRUCTION: C=0.84

IMPERVIOUS AREA:

PRE-CONSTRUCTION: 0.985 PAVEMENT AREA POST-CONSTRUCTION: 0.918 PAVEMENT AREA

LAND USES:

EXISTING HOTEL AND PARKING LOT

OWNER:

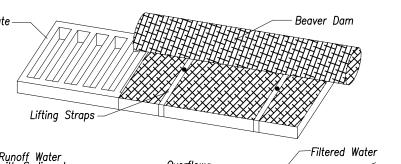
S&S REALTY LTD

CONTRACTOR:

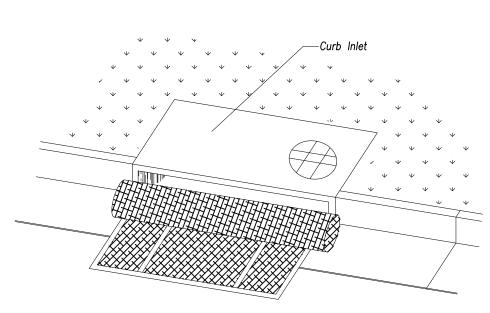
CONSULTANT: JOHN HANCOCK & ASSOCIATES, INC. 326 E. MARKET STREET SANDUSKY, OHIO 44870

PHONE: (419) 625-7838

PROJECT: 247516

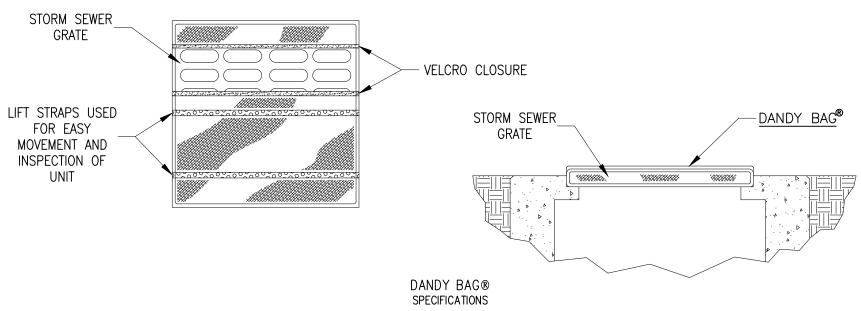


Maintenance: With a stiff bristle broom sweep silt & other debris off surface after each event. Installation: Stand grate on end. Slide the Beaver Dam bag on w/Dam on the top of the grate. Pull all excess down. Lay unit on its side. Carefully tuck flap in. Press Velcro strips together. Install the unit making sure front edge of grate is inserted in frame first then lower back into place. Press Velcro dots together which are located under lifting straps. This insures straps remain flush



<u>Specific Application</u> This Method of Inlet protection is applicable at curb inlets where overflow capability is necessary to prevent excessive ponding in front of the structure.



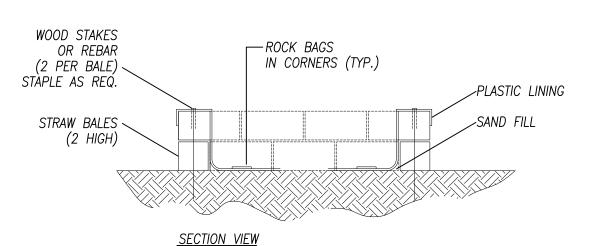


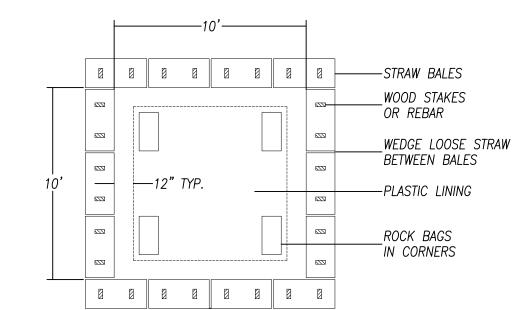
NOTE: THE DANDY BAG® WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS: HI-FLOW DANDY BAG® (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (20
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	1/min/m ²(gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec-1	2.1

Permittivity | ASIM D 4491 | Sec-*Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows







<u>PLAN VIEW</u>

CONCRETE WASHOUT DETAIL (CW)

1. ALL CONCRETE WASHOUT FACILITIES SHALL BE CLEANED OUT REGULARLY TO AVOID SPILLAGE OF CONCRETE OUTSIDE OF WASHOUT. 2. ALL WASHOUTS SHALL BE REPAIRED AND MAINTAINED REGULARLY.

Z

JOB NO.: 262718 DRN BY: KMB FILE NO.: 2627—BASE 10/8/2018 SHEET NO.: C.11

NOTE:
THE FOLLOWING SEQUENCING IS SCHEMATIC IN NATURE. CONTRACTOR SHALL DETERMINE INSTALLATION SCHEDULE TO MINIMIZE EROSION.

PRE-CONSTRUCTION ACTIVITY:

- 1. CONTACT THE OHIO UTILITIES PROTECTION SERVICE 1-800-362-2764 OR "811" TO LOCATE UNDERGROUND UTILITIES AT LEAST TWO (2) WORKING DAYS PRIOR TO EARTH DISTURBING ACTIVITIES. MARK UTILITIES ON THE PROJECT SITE.
- ESTABLISH STABLE CONSTRUCTION ENTRANCE, EQUIPMENT AND EMPLOYEE
- PARKING AND STAGING AREAS.
- 3. INSTALL PERIMETER PROTECTION DEVICES AND MEASURES SUCH AS SILT FENCE. 4. PROTECT EXISTING AND PROPOSED STORM WATER SEWER SYSTEM INLETS WITH INLET PROTECTION DEVICES WHERE APPLICABLE.

CONSTRUCTION ACTIVITY:

- 1. DE-WATER THE CONSTRUCTION SITE WHEN NEEDED.
- 2. BEGIN DEMOLITION OF ITEMS TO BE REMOVED, STRIPPING OFF TOPSOIL AND
- GRADE SITE. 3. INSTALL STORM SEWER SYSTEM.
- 4. PERMANENTLY OR TEMPORARILY SEED OR MULCH DISTURBED AREAS AS SOON AS POSSIBLE TO PREVENT SEDIMENT LOSS.
- 5. INSTALL NATURAL BOULDER SLOPE STABILIZATION IF NECESSARY. CONTRACTOR MAY INSTALL EROSION CONTROL BLANKETS OR TURF REINFORCEMENT MATS
- (TRM's) IF THERE IS ANY EROSION OR SCOURING. 6. FINE GRADE SITE, PERMANENTLY SEED AND LANDSCAPE. THE CONTRACTOR SHALL NOTIFY THE ERIE COUNTY SWCD OF DISPOSAL SITE IF ONE ACRE OR MORE IS
- DISTURBED AT THE DISPOSAL SITE. 7. REMOVE TEMPORARY EROSION CONTROL DEVICES AND MEASURES ONCE THE CONTRIBUTING DRAINAGE AREA IS STABILIZED, AND STABILIZE SOIL WITH

POST-CONSTRUCTION ACTIVITY

PFRMANFNT SFFDING.

- 1. REMOVE CONSTRUCTION SEDIMENT AND DEBRIS FROM PERMANENT EROSION CONTROL DEVICES AND MEASURES.
- 2. SUBMIT NOTICE OF TERMINATION (NOT). WITHIN 45 DAYS ONCE THE SOIL DISTURBING ACTIVITIES ARE COMPLETE AND THE SITE IS STABILIZED TO THE STANDARDS OF THE OHIO EPA.

FUELING AREA AND VEHICLE AND EQUIPMENT **MAINTENANCE/MATERIAL STORAGE NOTES:**

- 1. ON-SITE VEHICLE AND EQUIPMENT FUELING SHALL ONLY BE USED WHERE IT IS IMPRACTICAL TO SEND VEHICLES AND EQUIPMENT OFF-SITE FOR FUELING.
- 2. IF ON-SITE FUELING IS NECESSARY, CONTRACTOR SHALL DESIGNATE A DEDICATED AREA TO BE USED.
- 3. CONTRACTOR SHALL SUPPLY, CLEARLY MARK AND KEEP CLEAN-UP MATERIALS AND SPILL KITS AVAILABLE IN FUELING AREAS.
- 4. CONTRACTOR SHALL USE DRIP PANS OR ABSORBENT PADS DURING VEHICLE AND EQUIPMENT FUELING UNLESS FUELING IS CONDUCTED IN A DESIGNATED AREA, OVER AN IMPERMEABLE CONTAINMENT AREA.
- 5. FUELING AREAS SHALL BE ON LEVEL GRADE AND PROTECTED FROM STORM WATER RUN-ON AND RUN-OFF AND BE AT LEAST 100 FT FROM DOWNSTREAM DRAINAGE FACILITIES AND WATERCOURSES.
- 6. CONTRACTOR SHALL USE FUELING NOZZLES WITH AUTOMATIC SHUT-OFFS. FUELING OPERATIONS SHALL NOT BE LEFT UNATTENDED.
- 7. CONTRACTOR SHALL PROTECT FUELING AREAS WITH IMPERMEABLE BERMS AND OR DIKES TO PREVENT STORM WATER RUN-ON, RUN-OFF AND TO CONTAIN SPILLS.
- 8. CONTRACTOR SHALL NOT "TOP-OFF" FUEL TANKS.
- 9. CONTRACTOR SHALL INSPECT VEHICLES AND EQUIPMENT EACH DAY FOR LEAKS. IF LEAKS ARE FOUND, THEY MUST BE REPAIRED AND CLEANED-UP IMMEDIATELY AND/OR THE LEAKING VEHICLES OR EQUIPMENT REMOVED FROM THE PROJECT
- 10. CONTRACTOR SHALL DISPOSE OF ANY USED ABSORBENT SPILL KIT MATERIALS AND ANY CONTAMINATED SOILS ACCORDING TO FEDERAL, STATE AND LOCAL

<u>VEHICLE AND EQUIPMENT MAINTENANCE/MATERIAL STORAGE AREA:</u>

- 1. CONTRACTOR SHALL DESIGNATE A DEDICATED AREA TO BE USED IF STORING MATERIALS, MAINTAINING OR STORING VEHICLES AND EQUIPMENT ON-SITE
- STORAGE/MAINTENANCE AREAS SHALL BE ON LEVEL GRADE AND PROTECTED FROM STORM WATER RUN-ON AND RUN-OFF AND BE AT LEAST 100 FT FROM DOWNSTREAM DRAINAGE FACILITIES AND WATERCOURSES.
- 3. CONTRACTOR SHALL USE DRIP PANS OR ABSORBENT PADS DURING VEHICLE AND EQUIPMENT MAINTENANCE UNLESS MAINTENANCE IS CONDUCTED IN A DESIGNATED
- AREA. OVER AN IMPERMEABLE CONTAINMENT AREA. 4. CONTRACTOR SHALL SUPPLY, CLEARLY MARK AND KEEP CLEAN-UP MATERIALS
- AND SPILL KITS AVAILABLE IN STROAGE/MAINTENANCE AREAS. 5. CONTRACTOR SHALL PROTECT STORAG/MAINTENANCE WITH IMPERMEABLE BERMS
- AND OR DIKES TO PREVENT STORM WATER RUN-ON, RUN-OFF AND TO CONTAIN
- 6. CONTRACTOR SHALL PROVIDE IMPERMEABLE SPILL CONTAINMENT DIKES OR SECONDARY CONTAINMENT AROUND STORED OIL AND CHEMICAL DRUMS.
- 7. CONTRACTOR SHALL DISPOSE OF ANY USED ABSORBENT SPILL KIT MATERIALS AND ANY CONTAMINATED SOILS ACCORDING TO FEDERAL, STATE AND LOCAL

DUST AND DEBRIS CONTROL:

CONTRACTOR IS TO CONTROL DUST AT ALL TIMES, INCLUDING NON-WORKING DAYS, WEEKENDS, AND HOLIDAYS. ACTIVE WORK AREAS SHALL BE WET DOWN USING CONTRACTOR'S WATER SUPPLY OR TREATED WITH DUST SUPPRESSANTS AS REQUIRED AND APPROVED. STORM WATER BMPS SHALL BE MAINTAINED AND IMPROVED, AS NECESSARY, TO LIMIT DISCHARGE OF DUST AND DEBRIS.

TEMPORARY OR PERMANENT STABILIZATION OF WORK AREAS SHALL BE PERFORMED PROMPTLY. WET-CUTTING METHODS SHALL BE USED, WHERE FEASIBLE, FOR CUTTING CONCRETE, ASPHALT AND

CONTRACTOR SHALL CONTROL OFFSITE TRACKING OF DUST AND DEBRIS FROM CONTRACTOR'S VEHICLES AND CONTRACTOR'S SUBCONTRACTORS.

CONTRACTOR SHALL PERFORM STREET SWEEPING OR OTHER DUST AND DEBRIS MANAGEMENT MEASURES, AS NEEDED, TO FULFILL THE OBJECTIVES OF THIS SECTION.

LIQUIDS:

NON-HAZARDOUS LIQUIDS FROM DECONTAMINATION OR OTHER ACTIVITIES WILL BE STORED IN US DOT-APPROVED DRUMS OR HOLDING TANKS PENDING RECEIPT OF ANALYTICAL CHARACTERIZATION DATA. LIQUIDS, IF ANY, WILL BE TRANSPORTED BY A LICENSED HAULER TO AN APPROVED TREATMENT, STORAGE OR DISPOSAL FACILITY ("TSDF") OR WILL BE DISCHARGED DIRECTLY TO THE SANITARY SEWER WITH THE APPROVAL OF THE LOCAL PUBLICLY-OWNED TREATMENT WORKS ("POTW")

MAINTENANCE:

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE SEDIMENTATION AND EROSION CONTROL FEATURES ON THIS PROJECT. ANY SEDIMENT OR DEBRIS THAT HAS REDUCED THE EFFICIENCY OF A CONTROL SHALL BE REMOVED IMMEDIATELY. SHOULD A STRUCTURE OR FEATURE BECOME DAMAGED, THE CONTRACTOR SHALL REPAIR OR REPLACE IT AT NO COST TO THE OWNER.

GENERAL NOTES:

1. THE CONTRACTOR "LAY-DOWN AREA" IS SUBJECT TO CHANGE BY ___ AND/OR CONTRACTOR, THE CONTRACTOR "LAY-DOWN AREA" SHALL INCLUDE TRASH ENCLOSURES. PARKING AREAS. GENERAL CONTRACTOR OFFICES. FUEL TANK STORAGE AREAS, MATERIAL STORAGE AREAS, STAGING AREAS AND CONCRETE TRUCK WASH AREA. CONTRACTOR SHALL RECORD THE LOCATION OF ALL OF THESE AREAS ON THE CONSTRUCTION PLANS.

2. CONTRACTOR SHALL HAVE THE SWP3 PLAN OF THE PROJECT LOCATED "ON-SITE" IN AN AREA ACCESSIBLE BY THE GENERAL PUBLIC - 24 HOURS/DAY & 7 DAYS A WEEK. SWP3 PLAN SHALL BE ACCESSIBLE TO ERIE COUNTY. CITY OF SANDUSKY & OHIO EPA.

OFFSITE VEHICLE TRACKING:

- 1. A STABALIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED WITHIN SEVEN (7) DAYS OF THE ONSET OF SITE DISTURBING ACTIVITIES.
- 2. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR THE DAILY SWEEPING OF PAVED AREAS ADJACENT TO THE SITE ENTRANCE.
- 3. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSURING THAT ALL DUMP TRUCKS HAULING
- MATERIALS FROM THE CONSTRUCTION SITE WILL BE COVERED WITH TARPAULINS. 4. TRUCK WASH AREAS WILL ONLY BE LOCATED IN BERMED AREAS OR IN AREAS THAT DRAIN TO
- SEDIMENT REMOVAL BASINS. 5. WASTE FROM EQUIPMENT WASHING AND CONCRETE WASHOUT TO BE DISPOSED OF AT A CERTIFIED LANDFILL AND/OR TREATMENT PLANT.

SOLID WASTE MATERIALS:

SOLID WASTE MATERIALS MEETING THE EPA DEFINITION OF SOLID WASTE IDENTIFIED FOR OFFSITE DISPOSAL WILL BE COLLECTED DAILY AND STORED IN SECURELY LIDDED CONTAINERS (TRASH ENCLOSURE).

- 1. A SUFFICIENT NUMBER OF METAL DUMPSTERS WILL BE PROVIDED BY THE GENERAL CONTRACTOR.
- 2. A SUFFICIENT NUMBER OF METAL TRASH CANS WITH LIDS WILL BE USED ON-SITE. 3. SIGNS WILL BE AFFIXED TO WASTE CONTAINER ADVISING WHO SHOULD BE CONTACTED WHEN
- CONTAINERS NEED EMPTYING. 4. SIGNS WILL BE PERMANENTLY DISPLAYED AS WASTE STORAGE AREAS AGAINST DUMPING OF LIQUID
- OR HAZARDOUS WASTES CONTAINERS NOT SPECIFICALLY MARKED FOR SUCH DISPOSAL. 5. SITE PERSONNEL WILL BE ADVISED THAT NO CONSTRUCTION RELATED MATERIALS ARE TO BE BURIED ON-SITE AND THAT DISCIPLINARY ACTIONS WILL BE TAKEN AGAINST ALL OFFENDERS OF THIS POLICY. ALL SUBCONTRACTORS WILL BE GIVEN A WRITTEN COPY OF THIS POLICY.

SANITARY WASTES:

1. A SUFFICIENT NUMBER OF PORTABLE SANITARY WASTE UNITS WILL BE PLACED ON-SITE; WASTES FROM THESE UNITS WILL BE COLLECTED AS SPECIFIED BY THE WASTE HAULER. 2. SIGNS WILL BE POSTED SPECIFYING WHERE NEAR BY OFF-SITE FACILITIES ARE AVAILABLE.

HAZARDOUS MATERIALS:

HAZARDOUS WASTES. IF ENCOUNTERED, WILL BE COLLECTED DAILY AND DISPOSED OF IN SECURELY LIDDED

- 1. A SUFFICIENT NUMBER OF CONTAINERS WILL BE PROVIDED FOR HAZARDOUS BUILDING MATERIAL DISPOSAL. THESE WILL BE PROVIDED BY THE GENERAL CONTRACTOR.
- 2. SIGNS WILL BE PLACED ON BUILDING MATERIAL STORAGE CONTAINERS AUTHORIZING THE DISPOSAL OF
- SOLVENTS, OIL BASED PAINTS AND STAINS, CEMENT PRODUCTS, AND ASPHALTIC MATERIALS. 3. A SUFFICIENT NUMBER OF CONTAINERS WILL BE SUPPLIED BY THE GENERAL CONTRACTOR FOR THE
- DISPOSAL OF GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRALIC FLUID, AND ANTIFREEZE. 4. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ASSURING THAT ALL HAZARDOUS WASTE
- MATERIALS ARE COLLECTED DAILY AND DISPOSED OF PROPERLY. 5. SIGNS WILL BE POSTED NOTIFYING PERSONNEL THAT NO WASTE IS TO BE DISPOSED OF DOWN ANY DRAIN, OR ANY SEWER OR SEPTIC TANK, WASTES ARE NOT TO BE DUMPED ON THE GROUND, OR ANY WATERWAY, WASTES ARE NOT TO BE BURNED, BURIED, OR MIXED WITH OTHER WASTES UNLESS PERMITTED BY THE MANUFACTURER.

GOOD HOUSEKEEPING:

- THE FOLLOWING PRACTICES WILL BE FOLLOWED ON-SITE DURING THE CONSTRUCTION PROJECT.
- 1. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCTS REQUIRED TO DO THE JOB.
- 2. ALL MATERIALS STORED ON—SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER LABEL.
- 4. SUBSTANCES WILL NOT BE MIXED UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSAL OF THE CONTAINER.
- MANUFACTURERS RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE GENERAL CONTRACTOR WILL INSPECT DAILY TO INSURE PROPER USE OF ALL MATERIALS
- WRITTEN COPIES OF THESE PROCEDURES WILL BE DISTRIBUTED TO ALL EMPLOYEES AND SUBCONTRACTORS. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR REVIEWING THESE PROCEDURES WITH SITE PERSONNEL AND FOR INSURING THAT THEY ARE ADHERED TO.

HAZARDOUS PRODUCTS:

THESE PRACTICES ARE USED TO REDUCE THE RISK ASSOCIATED WITH HAZARDOUS MATERIALS. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALIBLE

2. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED, THEY CONTAIN IMPORTANT

PRODUCT INFORMATION. 3. IF SURPLUS PRODUCTS MUST BE DISPOSED OF MANUFACTUER RECOMMENDED METHODS WILL BE FOLLOWED.

PETROLEUM PRODUCTS:

ALL ON-SITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECIEVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE, PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ON-SITE WILL ONLY BE APPLIED ACCORDING TO THE MANUFACTURERS INSTRUCTION. ALL ON-SITE VEHICLE MAINTENANCE WILL BE ACCOMPLISHED IN DESIGNATED AREAS WITH ALL FLUIDS BEING COLLECTED AND DISPOSED OF PROPERLY.

SPILL CONTROL PRACTICES:

MANUFACTURERS RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON-SITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE. ADDITIONAL EQUIPMENT AND MATERIALS WILL BE ADDED TO THIS LIST IF RECOMMENDED BY THE MANUFACTURER OF ANY PRODUCT TO BE USED ON THIS SITE.

ALL SPILLS WILL BE CLEANED IMMEDIATELY AFTER DISCOVERY. THE OWNER, OR ITS DESIGNATED REPRESENTATIVE IS TO BE IMMEDIATELY NOTIFIED OF ANY SPILLS. THE SPILL AREA WILL BE KEPT VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH HAZARDOUS MATERIAL.

SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE OHIO EPA, REGARDLESS OF THE SIZE OF THE SPILL.

SPILL CONTROL PRACTICES WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THE REOCCURANCE OF ANY SPILL AND INCLUDE MEASURES OF HOW TO RESPOND TO SIMILAR OCCURANCES. A DISCRIPTION OF ANY SPILL THAT OCCURS WILL BE RECORDED INCLUDING WHAT CAUSED IT AND HOW EASY IT WAS TO CLEAN UP.

THE GENERAL CONTRACTOR WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE GENERAL CONTRACTOR WILL DESIGNATE THREE SITE PERSONNEL WHO WILL RECIEVE SPILL PREVENTION AND CLEANUP TRAINING. THE NAMES OF THESE INDIVIDUALS WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE SITE OFFICE.

NO TOXIC OR HAZARDOUS WASTES SHALL BE DISPOSED INTO STORM DRAINS, SEPTIC TANKS, OR BY BURYING, BURNING, OR MIXING WASTES.

ALL CONTAINERS USED FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES MUST BE COVERED AND LEAK-PROOF.

ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED IN OHIO EPA APPROVED SOLID WASTE FACILITIES OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES (TSDFs).

CURING COMPOUNDS TO HAVE SPECIAL HANDLING PROCEDURES, CONTACT CONSTRUCTION MANAGER.

IN THE EVENT OF A LARGE RELEASE OF PETROLEUM WASTE (MORE THAN 25 GALLONS), OF PETROLEUM WASTE, MUST CONTACT OHIO EPA AT 1-800-282-9378, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE SPILL.

IN THE EVENT OF A SMALL RELEASE OF PETROLEUM WASTE (LESS THAN 25 GALLONS), PETROLEUM BASED AND CONCRETE

EROSION CONTROL NOTES:

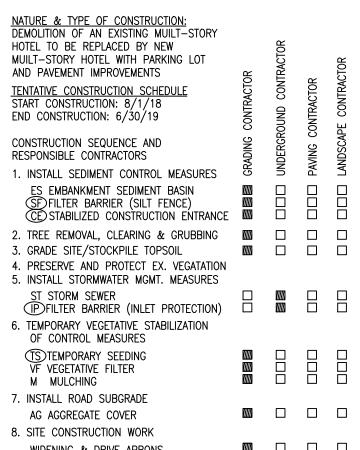
- 1. DIVERSION AND STRUCTURAL MEASURES- WILL BE INSPECTED AT 7 DAY INTERVALS OR AFTER EVERY RAINSTORM PRODUCING RUNOFF. 2. SEDIMENT BASINS AND PONDS — WILL BE CHECKED AFTER EACH MAJOR
- PHASE OF THE DEVELOPMENT FOR SEDIMENT ACCUMULATION. 3. VEGETATIVE PLANTING— SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL.
- 4. REPAIRS ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES, OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 3 DAYS OF INSPECTION.
- 5. MOWING- DRAINAGEWAYS, DITCHES AND ANY OTHER AREAS THAT SUPPORT A DESIGNED FLOW OF WATER WILL BE MOWED REGULARLY TO MAINTAIN
- 6. FERTILIZATION- SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER, WILL BE INSPECTED AND FERTILIZED AS NECESSARY.

THE CONTRACTOR/CONSTRUCTION MANAGER WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION. THIS RESPONSIBILITY WILL BE TURNED OVER TO THE OWNER AFTER 100% OF THE DEVELOPMENT IS COMPLETED AND ACCEPTED BY ERIE COUNTY. HOWEVER THE CONTRACTOR SHALL NOT TRANSFER THESE IMPROVEMENTS FOR THE PURPOSE OF MAINTENANCE UNTIL HE HAS COMPLIED WITH THE ABOVE.

FOR DISTURBED AREAS OVER 50 FEET AWAY FROM A STREAM REMAINING DORMANT FOR OVER 14 DAYS, CONTRACTOR TO PROVIDE TEMPORARY EROSION CONTROLS

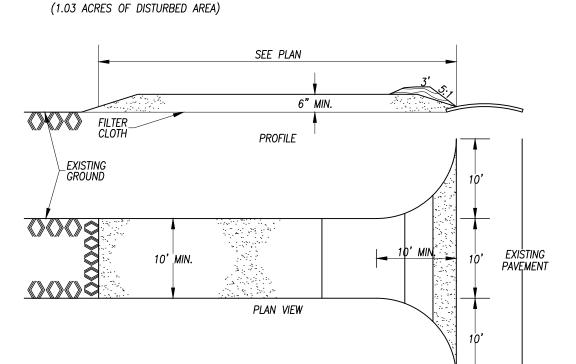
FOR DISTURBED AREAS OVER 50 FEET AWAY FROM A STREAM, CONTRACTOR TO TO PROVIDE PERMANENT EROSION CONTROLS WITHIN 2 DAYS OF REACHING FINAL

POST-STABILIZATION: STORM RUNOFF TO ENTER PRIVATE STORM SYSTEM WHICH OUTLETS TO A DETENTION BASIN, THEN TO HEMMING DITCH.
CONTRACTOR TO GRADE SITE TO NOT ALLOW RUNOFF ONTO ADJOINING PROPERTIES.



- WIDENING & DRIVE APRONS
- 9. VEGETATIVE COVER ON ALL AREAS TO BE EXPOSED LONGER THAN 60 DAYS (TS)TEMPORARY SEEDING SURFACE ROADS
- P PAVING 11. PERMANENT VEGETATIVE STABILIZATION OF ALL EXPOSED AREAS
- (PS) PERMANENT SEEDING SO SODDING 12. INSTALL PERMANENT LANDSCAPING 13. PERFORM CONTINUING MAINTENANCE

TOTAL AREA OF DISTURBANCE



- 1. STONE SIZE USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2. LENGTH AS REQUIRED. THICKNESS - NOT LESS THAN SIX (6) INCHES.
- 4. WIDTH TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGREES OR EGRESS OCCURS. 5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.

6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION

ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED. 7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC

TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT

OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED

ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY. 8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE

AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. 9. PERIODIC INSPECTION AND NEEDED MAINTAINENCE SHALL BE PROVIDED AFTER EACH RAIN STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

TEMPORARY SEEDING (TS)

	$\overline{}$		
SEEDING DATES	SPECIES	LB./1000 FT2	LB/ACRE
MARCH 1 TO AUGUST 15	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	128 (4 BUSHEL) 40 40
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 40 40
	ANNUAL RYEGRASS PERENNIAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	1.25 3.25 0.4 0.4	55 142 17 17
	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	128 (3 BUSHEL) 40 40
AUGUST 16TH TO NOVEMBER	RYE TALL FESCUE ANNUAL RYEGRASS	3 1 1	112 (3 BUSHEL) 40 40
	WHEAT TALL FESCUE ANNUAL RYEGRASS	3 1 1	120 (2 BUSHEL) 40 40
	PERENNIAL RYE TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 40 40
	ANNUAL RYEGRASS PERENNIAL RYEGRASS CREEPING RED FESCUE KENTUCKY BLUEGRASS	1.25 3.25 0.4 0.4	40 40 40
NOVEMBER 1 TO FEB. 29	USE MULCH ONLY OR DORMANT SEI	EDING	

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED.

- 1. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE COSTRUCTION SITE.
- 2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REWORKED FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR. THESE IDLE AREAS SHALL BE SEEDED WITHIN 7 DAYS AFTER GRADING.
- 3. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. TEMPORARY SEEDING SHOULD NOT BE POSTPONED IF IDEAL SEEDBED PREPERATION IS
- REFERENCE: RAINWATER AND LAND DEVELOPMENT MANUAL

SOIL PROTECTION CHART

JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
		A +			*	*					
		•						,			
В											
		C T			* D	- *			0		
		<u> </u>									
		E +* *							,		
F +											
	JAN. B	JAN. FEB.	B →	B → C +	B → C +	B	B	B	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	B	B

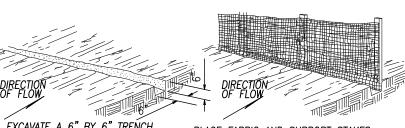
- A = KENTUCKY BLUEGRASS 90 LBS/AC MIXED WITH
- PFRENNIAL RYEGRASS 30 LBS/AC. B = KENTUCKY BLUEGRASS 135 LBS/AC MIXED WITH
- PERENNIAL RYEGRASS 45 LBS/AC AND 2 TONS STRAW MULCH/AC. C = SPRING OATS @ 100 LBS/AC.
- D = WHEAT OR CEREAL RYE @ 150 LBS/ AC. E = SOD.
- F = STRAW MULCH @ 2 TONS/AC.* = IRRIGATION NEEDED DURING JUNE AND JULY.
- ** = IRRIGATION NEEDED FOR 2-3 WEEKS AFTER APPLYING SOD. NOTE: ALL CONTROL MEASURES SHALL CONFORM TO THE NPDES PERMIT

PERMANENT SEEDING DC

ERMANENT SE	<u> </u>		
SEED MIX	SEEDIN	G RATE	NOTES:
SEED MIX	LBS./ACRE	LBS./1,000 SQ. FEET	NOTES:
		GENERAL USE	
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20-40 10-20 20-40	1/2-1 1/4-1/2 1/2-1	FOR CLOSE MOWING & FOR WATERWAYS WITH <2.0 FT/SEC VELOCITY
TALL FESCUE	40-50	1-1 1/4	
TURF-TYPE (DWARF) FESCUE	90	2 1/4	
		LAWNS	
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100–120	2 2	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100–120	2 1-1/2	FOR SHADED AREAS

CONSTRUCTION OF A FILTER BARRIER

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED REFERENCE: 2006 RAINWATER AND LAND DEVELOPMENT MANUAL



BACKFILL AND COMPACT THE EXCAVATED SOIL STEP 3

4. SOIL AMENDMENTS — TEMPORARY VEGETATION SEEDING RATES

AND FERTILIZER SHALL BE USED.

INTERRUPTION.

SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION, WHICH MAY

REQUIRE THE USE OF SOIL AMENDMENTS. BASE RATES FOR LIME

5. SEEDING METHOD - SEED SHALL BE APPLIED UNIFORMLY WITH A

COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED

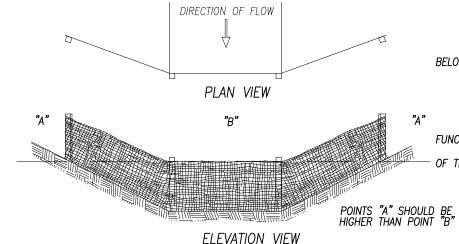
INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING

IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND

WHEN FEASIBLE, SEÉD THAT HAS BEEN BROADCAST SHALL BE

THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT

CYCLONE SPREADER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER.



PROPER PLACEMENT OF A FILTER BARRIER IN A DRAINAGE WAY

MATERIALS: FILTER FABRIC SHALL MEET THE REQUIREMENTS OF CMS 207.02. CONSTRUCTION: THE BOTTOM OF THE FABRIC SHALL BE BURIED 6" IE GROUND. THE FABRIC SHALL BE HIGH ENOUGH TO RETAIN SEDIMENT— LADEN WATER AND ADEQUATELY SUPPORTED TO PREVENT COLLAPSE OR BURSTING. THE GROUND ELEVATION OF THE FENCE SHALL BE HELD CONSTANT EXCEPT THAT HE END ELEVATIONS SHALL BE RAISED TO PREVENT FLOW AROUND THE END OF MAINTENANCE: THE FILTER FABRIC FENCE SHALL BE MAINTAINED TO BE FUNCTIONAL, AT THE DIRECTION OF THE ENGINEER. THIS SHALL INCLUDE REMOVAL
OF TRAPPED SEDIMENT AND REQUIRED CLEANING, REPAIR, AND\OR REPLACEMENT FILTER FABRIC. SEDIMENT SHALL BE REMOVED WHEN ITS DEPTH REACHES

HALF THE HEIGHT OF THE LOWEST SECTION OF FENCE.

THEAY MODESTIT: OF ALL MATERIALS, CONSTRUCTUION, MAINTENANCE AND REMOVAL SHALL BE PAID FOR UNDER ITEM 207, METER, FILTER FABRIC FENCE. FILTER BARRIER (SILT FENCE) (SF) NOT TO SCALE

REVISED:

Z

JOB NO.: 262718 DRN BY: KMB 2627-BASE FILE NO.: DATE: 10/8/2018 SHEET NO.: C.12

CONTRACTOR TO REPORT ANY SWPPP ACTIVITIES INCONSISTENT WITH THIS PLAN

SAWED BEFORE REMOVING SO AS TO PRESERVE A NEAT LINE FOR THE ENTIRE LENGTH OF THE TRENCH ON EACH SIDE. 4. ALL VERTICAL EDGES OF EXISTING ASPHALT CONCRETE SHALL BE TACK COATED. SEAL JOINT WITH AC-20, FOR 448.

ODOT CATCH BASIN 2-2B

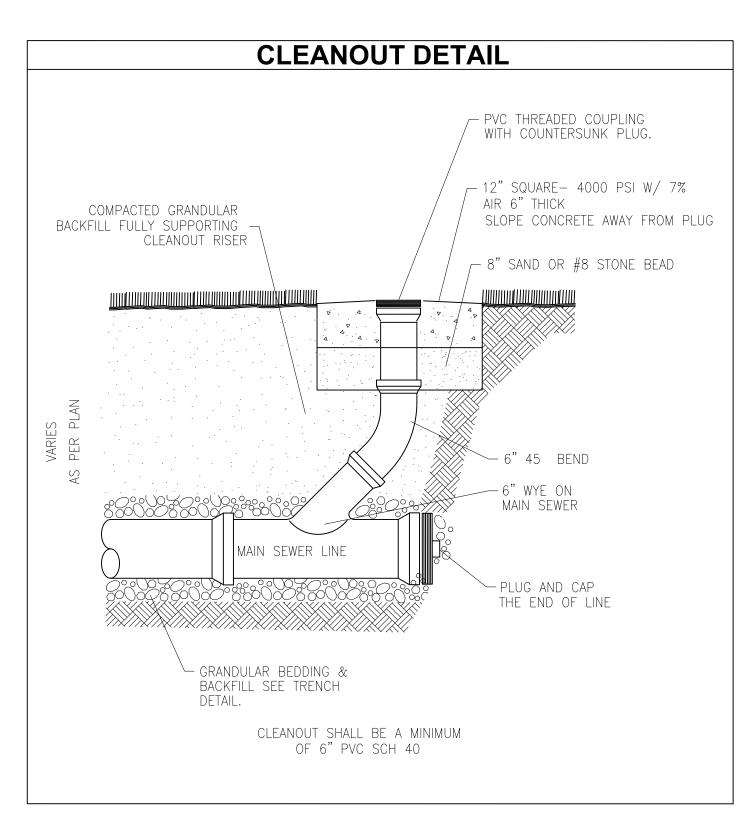
ALL GRATE EDGES TO BE ROUNDED 1/4" R RADIUS

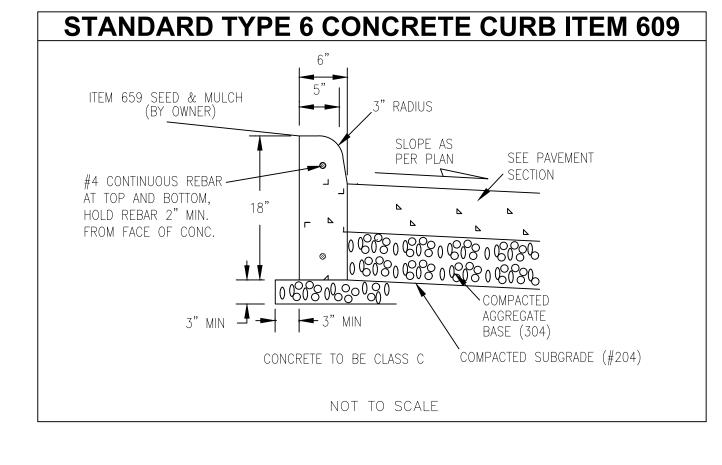
NOT TO SCALE

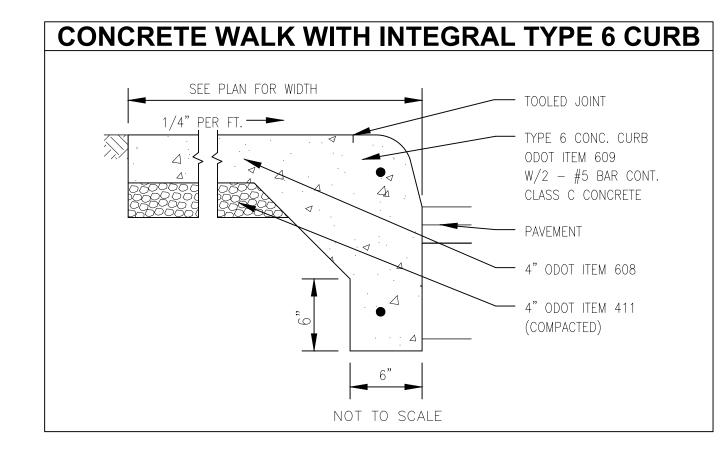
PERMISSABLE -

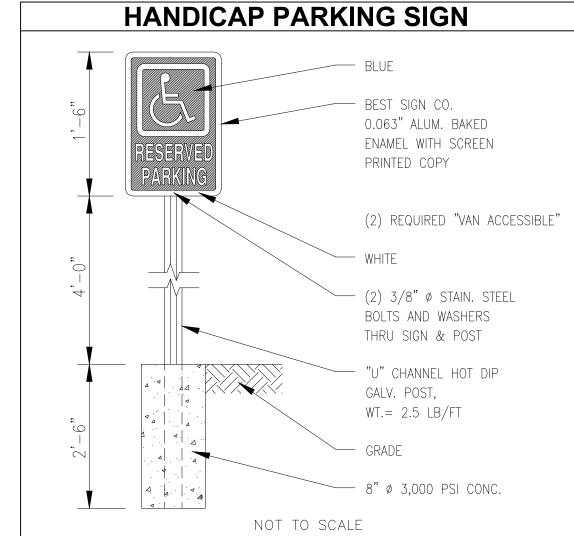
NOTES

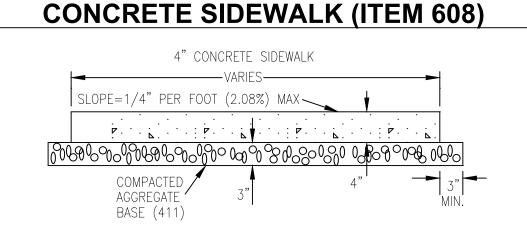
SECTION C-C





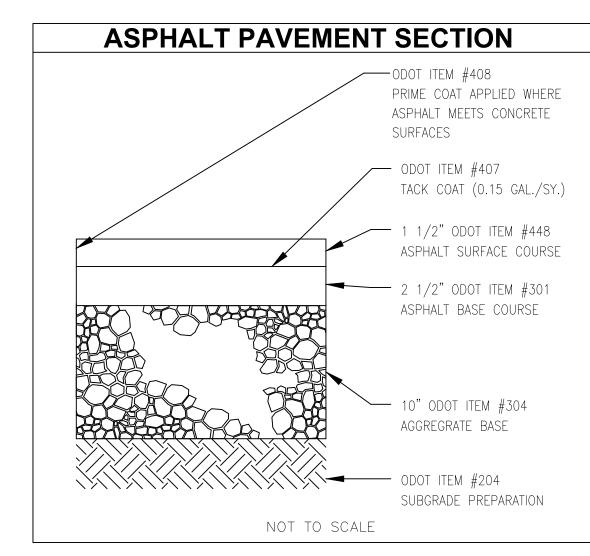


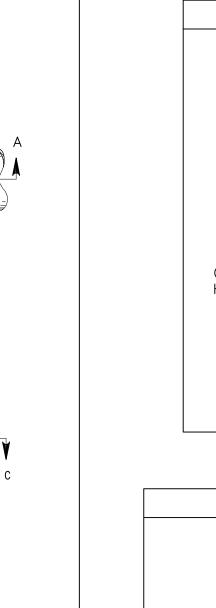




- 1. SIDEWALKS TO BE A MINIMUM OF 4" THICK WITH TOOLED JOINTS. 2. CONCRETE FOR SIDEWALKS SHALL BE CLASS C AND CONFORM TO ODOT ITEM 499 WITH 6x6-W2.9x2.9 WWF.
- 3. SEE ARCHITECTURAL SITE PLAN FOR JOINT SPACING AND DIMENSIONS. 4. CONSTRUCTION JOINTS SHALL BE FORMED AROUND ALL APPURTENANCES SUCH AS MANHOLES OR UTILITY POLES EXTENDING INTO AND THROUGH THE SIDEWALK. 5. EXPANSION JOINT FILLER 1/4" THICK SHALL BE INSTALLED BETWEEN THE WALK
- AND FIXED STRUCTURE EXTENDING THE FULL DEPTH OF THE WALK. 6. THE SURFACE OF THE WALK SHALL HAVE A TRAVERSE SLOPE OF 1/4" PER FOOT, WITH THE LOW SIDE ADJACENT TO THE ROAD.
- 7. DEPTH OF SAWCUTS SHALL BE 1/4 THE THICKNESS OF THE WALK. 8. A UNIFORM APPLICATION OF CURING MEMBRANE SHALL BE APPLIED TO THI EXPOSED SURFACES OF CONCRETE IN ACCORDANCE WITH ODOT ITEM 451. 9. WHEN A SIDEWALK IS ADJACENT TO A CURB, SIDEWALK SHALL BE A MINIMUM OF FIVE FEET (5') WIDE.

NOT TO SCALE



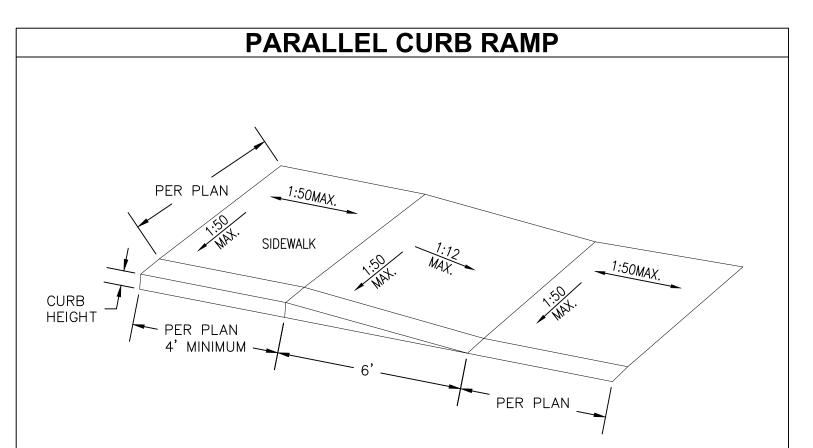


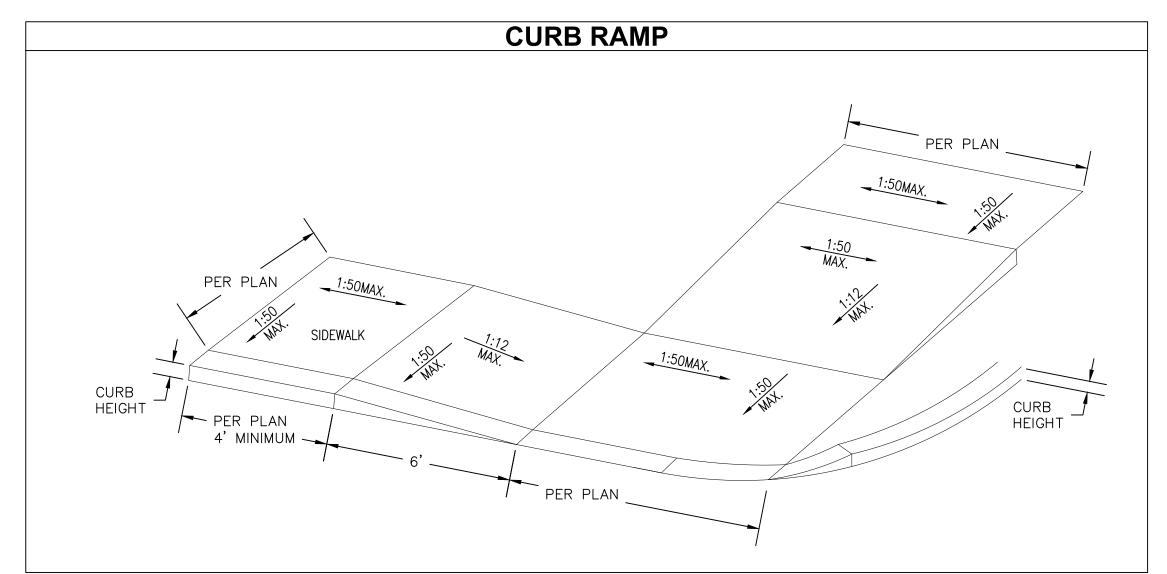
WALLS: BRICK OR CAST-IN-PLACE WALLS HAVE A NOMINAL THICKNESS OF 8". PRERCAST WALLS SHALL HAVE A MINIMUM THICKNESS OF 6" AND BE REINFORCED SUFFICIENTLY TO PERMIT SHIPPING ANDD HANDLING WITHOUT DAMAGE.

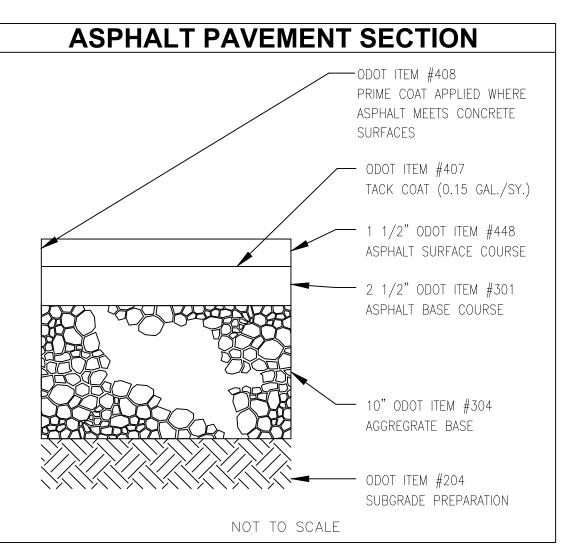
BOTTOM SLAB MAY BE PRECAST SEPARATELY AND THE OUTLET PIPE PLACE ON TOP OF IT WITH THE

BOTTOM SHAPED TO DRAIN

CONCRETE: CAST-IN-PLACE CONCRETE IS TO BE CLASS C. ALL PRECAST CONCRETE SHALL MEET THE REQUIREMENTS OF CMS 706.13 WITH A MINIMUM OF 4% ENTRAINED AIR IN THE HARDENED CONCRETE AND BE MARKED WITH THE CATCH BASIN NUMBER. PRECAST BASE: IF A PRECAST BASE IS USED, IT SHALL BE SET DEEP ENOUGH SO THAT THE TOPCAN BE PLACED ON THE BASE TO PROVIDE THE GRATE ELEVATION SPECIFIED IN THE PLANS. LAYERS OF BRICK SHALL NOT BE USED TO ADJUST THE ELEVATION. LOCATION AND ELEVATION: WHEN GIVEN ON THE PLANS, LOCATION AND ELEVATION ARE AT THE TOP CORNER OF THE GRATE. MINIMUM DEPTH: THE MINIMUM DEPTH OF CB 2-2B SHALL BE THE O.D. OF THE PIPE PLUS 4". OPENINGS: PIPE OPENING SHALL BE THE O.D. OF THE PIPE BEING SUPPLIED PLUS 2" WHEN FABRICATED OR FIELD CUT. THE INTERSTITIAL SPACE SHALL BE FILLED WITH GROUT PER CMS 601. GRATING AND FRAME: MINIMUM WEIGHT OF GRATE, 120 LBS., MINIMUM WEIGHT OF FRAME 40 LBS.







262718	
KMB	
2627-BASE	
10/8/2018	
C.13	
	KMB 2627-BASE 10/8/2018

13

S

S

Z Z

DESCRIPTION

The Night Falcon™ LED floodlight luminaire combines high-efficiency optics, superior thermal management and energy efficiency in a cost-effective solution. The compact, robust design incorporates a separate driver compartment for maximum heat dissipation to insure longevity of both the fixture and the LEDs. The Night Falcon luminaire uses precision engineered optics delivering superior uniformity and excellent illumination to the targeted application. Typical applications include area lighting for security, building facade lighting, accent and signage lighting in both commercial and industrial applications. The Night Falcon luminaire is UL/cUL listed for wet locations and is IP66 rated.

Catalog #	Туре	
, i		
Project		
Comments		Date
Prepared by		

LUMARK® 🦘

SPECIFICATION FEATURES

Construction

Heavy-duty, die cast aluminum housing, driver compartment and driver housing door. A separate driver compartment and external fins provide optimal thermal management that result in longer LED and driver life. The housing, driver compartment and optical chamber are IP66 rated. Access to the driver for maintenance is achieved with a removable driver door using pan head screws. A one-piece silicone gasket seals the door to the fixture housing. The fixture is 3G vibration rated (ANSI C136.31) to ensure durability in area and site lighting applications.

Optics

The LED chamber incorporates a vacuum metalized reflector that provides high-efficiency illumination. Optics are precisely designed to shape the wide NEMA type 6H x 6V distribution, maximizing efficiency and application spacing. Clear glass tempered lens with full circumference form-in-place silicone gasket protects the optics from damage. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI, Optional 5700K CCT and 3000K CCT and minimum 70 CRI are available.

Electrical

LED driver is mounted to the removable die-cast aluminum door for optimal heat sinking and ease of maintenance, 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Integral 6kV surge is standard.10kV/10kA common- and differential- mode surge protection available as an option. 0-10V dimming driver is available to accommodate controls capability such as dimming and occupancy. Standard NEMA 3-PIN twistlock photocontrol receptacle and NEMA 7-PIN twistlock photocontrol receptacles are available as options. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available. 90% lumen maintenance greater than 50,000 hours per IESNA TM-21.

Accessories

Heavy-duty steel top and side visors control glare and spill light. 1/8" thick UV stabilized vandal guard shields glass lens from impact when mounted at low levels. Easy to install wire guard features a heavy-gauge welded construction with corrosion resistant polyester powder coat finish to protect glass from projected objects.

Mounting

Mounting options include an integral die-cast aluminum slipfitter that is preset to a tilt of 45°. The knuckle base is supplied with a tooth lock adjustment that can be adjusted in 5° increments to provide flexibility in aiming the fixture from a variety of surfaces. Visual 15° adjustment indicators on the knuckle allow for 180° field rotation of the floodlight assembly. The slipfitter fits standard 2-3/8"-3" O.D. tenon. The trunnion mounting includes a 3/16" polyester powder coated galvanized steel trunnion with a 16/3 SOW cord. The trunnion mount uses an interlocking slide adjustment that is locked into place with a set screw.

Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is carbon bronze. Additional colors available in summit white, white, grey, bronze, black, dark platinum and graphite metallic. Consult your Eaton's Cooper Lighting business representative for a complete selection of standard colors.

Warranty

Five-year warranty.





NFFLD NIGHT FALCON

Solid State LED



FLOODLIGHT

CERTIFICATION DATA

UL/cUL Wet Location Listed IP66 Fixture and Optical Chamber LM79/LM80 Compliant 3G Vibration Rated RoHS Compliant DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver

> 0.9 Power Factor

< 20% Total Harmonic Distortion

120V 50/60Hz, 347V/60Hz and 480V/60Hz -40°C Minimum Ambient Temperature Rating

+40°C Maximum Ambient Temperature Rating

EPA

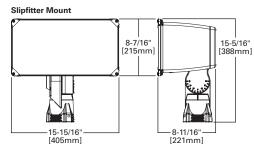
Effective Projected Area (Sq. Ft.): 1.25

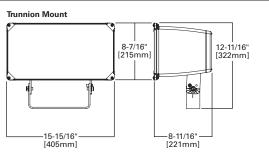
SHIPPING DATA Approximate Net Weight:

20 lbs. (9.09 kgs.)

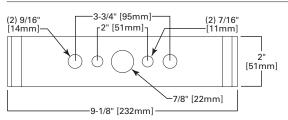


DIMENSIONS





TRUNNION MOUNT DRILL PATTERN



POWER AND LUMENS

A25 LED	NFFLD-A25	NFFLD-A25-7060	NFFLD-A25-7030
Delivered Lumens	9,432	9,937	9,297
CCT (Kelvin)	4000K	5700K	3000K
CRI (Color Rendering Index)	70	70	70
NEMA Distribution (H x V)	6 x 6 Wide	6 x 6 Wide	6 x 6 Wide
Power Consumption (Watts)	85W	85W	85W
A40 LED	NFFLD-A40	NFFLD-A40-7060	NFFLD-A40-7030
Delivered Lumens	14,683	15,468	14,473
CCT (Kelvin)	4000K	5700K	3000K
CRI (Color Rendering Index)	70	70	70
NEMA Distribution (H x V)	6 x 6 Wide	6 x 6 Wide	6 x 6 Wide
Power Consumption (Watts)	129W	129W	129W

CURRENT DRAW

	Model Series					
Voltage (V)	NFFLD-A25	NFFLD-A40				
	Current (A)	Current (A)				
120V	0.700	1.116				
208V	0.410	0.646				
240V	0.361	0.568				
277V	0.321	0.503				
347V	0.279	0.408				
480V	0.192	0.299				

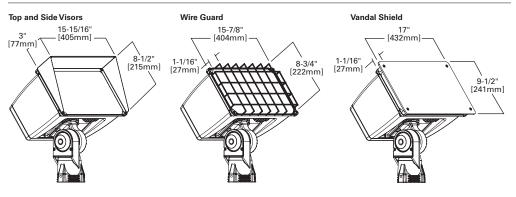
LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96
50°C	0.92

LUMEN MAINTENANCE

Ambient Temperature TM-21 Lumen Maintenance (50,000 Hours) Theoretical L70 (Hours) NFFLD-A25 25°C > 93% > 300,000 40°C > 93% > 295,000 50°C > 92% > 285,000 NFFLD-A40 25°C > 93% > 290,000 40°C > 92% > 285,000							
25°C > 93% > 300,000 40°C > 93% > 295,000 50°C > 92% > 285,000 NFFLD-A40 25°C > 93% > 290,000 40°C > 92% > 285,000		Maintenance					
40°C > 93% > 295,000 50°C > 92% > 285,000 NFFLD-A40 25°C > 93% > 290,000 40°C > 92% > 285,000	NFFLD-A25						
50°C > 92% > 285,000 NFFLD-A40 25°C > 93% > 290,000 40°C > 92% > 285,000	25°C	> 93%	> 300,000				
NFFLD-A40 25°C > 93% > 290,000 40°C > 92% > 285,000	40°C	> 93%	> 295,000				
25°C > 93% > 290,000 40°C > 92% > 285,000	50°C	> 92%	> 285,000				
40°C > 92% > 285,000	NFFLD-A40						
	25°C	> 93%	> 290,000				
E0°C - 020/ - 200,000	40°C	> 92%	> 285,000				
50 C > 92% > 280,000	50°C	> 92%	> 280,000				

ACCESSORIES



ORDERING INFORMATION

Sample Number: NFFLD-A40-E-UNV-66-S-CB-PER

Product Family ¹	Light Engine ²	Driver ³	Voltage	Distribution	Mounting	Color		
NFFLD=Night Falcon LED Floodlight	A25 =9,400 Nominal Lumens A40 =14,600 Nominal Lumens	E=Non-Dimming D=Dimming (0-10V)	UNV=120-277V 347=347V ⁴ 480=480V ⁴	66=NEMA 6H x6V Wide	S=Slipfitter ⁵ T=Trunnion	CB=Carbon Bronze (Standard) BK=Black BZ=Bronze AP=Grey WH=White WHT=Summit White DP=Dark Platinum GM=Graphite Metallic		
Options (Add as Suffix)				Accessories (Order Separately) 8				
7030=70 CRI / 3000K ⁶ 7060=70 CRI / 5700K ⁶ PER=NEMA 3-PINTwistlock Photocontrol Receptacle PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle ⁷ 10K=10kV/10kA UL 1449 Surge Protective Device HA=50°C High Ambient Temperature D10=<10% Dimming ⁷				FA63=3" O.D. Surface Mc OA1223=10kV/10kA UL 1. OA/RA1013=Photocontro OA/RA1014=NEMA Photo OA/RA1016=NEMA Photo OA/RA1027=NEMA Photo OA/RA1201=NEMA Photo RAB-XX=Right Angle Pip SAB-XX=Steel Angle Bra TYS-XX=Slipfitter Adapte TS2/NFFLD-XX=Top and VS/NFFLD=Vandal Shield WG/NFFLD=Wire Guard	449 Surge Protective Shorting Cap occontrol - 120V occontrol - Multi-Tap occontrol - 480V occontrol - 347V e Bracket for Slipficket for Trunnion er for 2-3/8", 3" or 3 Side Visors "1"	p tter		

NOTES: 1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. 2. Standard 4000K CCT and minimum 70 CRI. Consult IES file for actual lumen output.
3. Consult factory for driver surge protection values. 4. Not recommended for use with ungrounded, delta configured systems. 5. Fits 2-3/8" to 3" 0.D. tenon, wire leads run through slipfitter. 6. Extended lead times apply. Use dedicated IES files for 3000K and 5700K when performing layouts. These files are published on the Night Falcon luminaire product page on the website. 7. Must order with dimming driver. 8. Replace XX with color designation. Additional brackets and adaptors available on the poles product page on the website. 9. Not available with tenon mount. 10. Not available with slipfitter mount. 11. Cannot combine TS2 (Top and Side Visor), VS (Vandal Shield), or WG (Wire Guard), limited to one external guard per fixture.

STOCK ORDERING INFORMATION

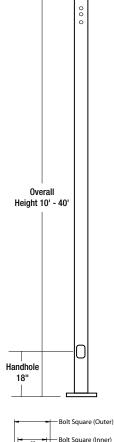
Stock Sample Number: NFFLD-A40-S

Series	Light Engine	Mounting	Voltage
NFFLD=Night Falcon	A25=9,400 Nominal Lumens	S=Slipfitter	[BLANK]=120-277V
	A40=14,600 Nominal Lumens	T=Trunnion	347 =347V

NOTES: Options not available with stock products. Order accessories as separate items for field installation. Refer to standard ordering information to add options. Refer to In-Stock Guide for availability. Stock fixture is 4000K, non-dimming, 120-277V or 347V, carbon bronze only.



Cat.# SSS-S SERIES Type Job Approvals SQUARE STRAIGHT STEEL **APPLICATIONS** 00



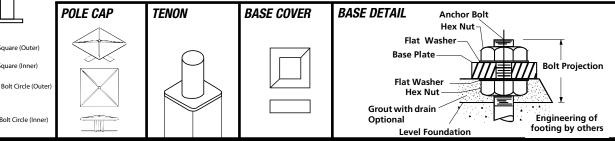
· Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location

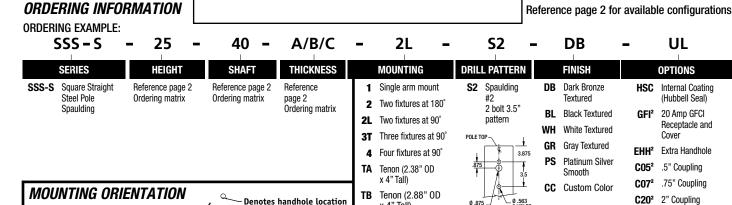
CONSTRUCTION

- SHAFT: One-piece straight steel with square cross section, flat sides and minimum 0.23" radius on all corners; Minimum yield of 46,000 psi (ASTM-A500, Grade B); Longitudinal weld seam to appear flush with shaft side wall; Steel base plate with axial bolt circle slots welded to pole shaft having minimum yield of 36,000 psi (ASTM A36)
- BASE COVER: Two-piece square aluminum base cover included standard
- POLE CAP: Pole shaft supplied with removable cover when applicable; Tenon and post-top configurations also available
- HAND HOLE: Rectangular 3x5 steel hand hole frame (2.38" x 4.38" opening); Mounting provisions for grounding lug located behind gasketed cover
- ANCHOR BOLTS: Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (ASTM F1554). Galvanized hardware with two washers and two nuts per bolt for leveling

FINISH

- Durable thermoset polyester powder coat paint finish with nominal 3.0 mil thickness
- Powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method
- Decorative finish coat available in seven standard colors; Custom colors available; RAL number preferable; Internal protective coating available





1	2	2L	3T	4	
효		요 [

ACCESSORIES- Order Separately

Catalog Number	Description
VM1 ³	1st mode vibration damper
VM2SXX	2nd mode vibration damper

- Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: SSS-S-25-40-A-1-S2-TR-DB
- Specify option location using logic found on page 2 (Option Orientation)
- VM1 recommended on poles 20' and taller with EPA of less than 1

#2 DRILL PATTERN





UL

OPTIONS

Internal Coating

(Hubbell Seal)

20 Amp GFCI

Cover

C20² 2" Coupling

Bracket

Receptacle and

Extra Handhole

.5" Coupling

.75" Coupling

Mid-pole Luminaire

2nd mode vibra-

tion damper

LAB Less Anchor Bolts

UL UL Certified

HSC

C052

C07²

MPR²

VM2

x 4" Tall)

x 6" Tall)

pole cap)

Tenon (3.5" OD

(2.375 x 4.25)

Removable Tenon

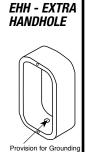
Open Top (includes

TC

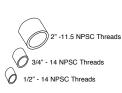
ORDERING INFORMATION Cont.

Catalan Number	Height		Nominal	Wall	Bolt Circle	Bolt Circle	Bolt Square	Base Plate			Data analaha
Catalog Number	Feet	Meters	Shaft Dimensions	Thickness	(suggested)	(range)	(range)	Square	Anchor bolt size	Bolt Projection	Pole weight
SSS-S-10-40-A-XX-XX	10	3.0	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	77
SSS-S-12-40-A-XX-XX	12	3.7	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	90
SSS-S-14-40-A-XX-XX	14	4.3	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	103
SSS-S-16-40-A-XX-XX	16	4.9	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	116
SSS-S-18-40-A-XX-XX	18	5.5	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	129
SSS-S-20-40-A-XX-XX	20	6.1	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	142
SSS-S-25-40-A-XX-XX	25	7.6	4" square	0.125"	9"	8" - 10"	5.66" - 7.07"	9"	3/4" x 30" x 3"	3.5	175
SSS-S-14-40-B-XX-XX	14	4.3	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	152
SSS-S-16-40-B-XX-XX	16	4.9	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	171
SSS-S-18-40-B-XX-XX	18	5.5	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	190
SSS-S-20-40-B-XX-XX	20	6.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	209
SSS-S-25-40-B-XX-XX	25	7.6	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	257
SSS-S-30-40-B-XX-XX	30	9.1	4" square	.188"	11"	10" - 12"	7.07" - 8.48"	10.50"	3/4" x 30" x 3"	3.5	304
SSS-S-16-50-B-XX-XX	16	4.9	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	219
SSS-S-18-50-B-XX-XX	18	5.5	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	243
SSS-S-20-50-B-XX-XX	20	6.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	267
SSS-S-25-50-B-XX-XX	25	7.6	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	327
SSS-S-30-50-B-XX-XX	30	9.1	5" square	.188"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	387
SSS-S-25-50-C-XX-XX	25	7.6	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	427
SSS-S-30-50-C-XX-XX	30	9.1	5" square	.25"	11"	10.25" - 13.25"	7.25" - 9.37"	11.50"	1" x 36" x 4"	4.5	507
SSS-S-20-60-B-XX-XX	20	6.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1-1/4" x 42" x 6"	5.0	329
SSS-S-25-60-B-XX-XX	25	7.6	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1-1/4" x 42" x 6"	5.0	404
SSS-S-30-60-B-XX-XX	30	9.1	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1-1/4" x 42" x 6"	5.0	479
SSS-S-35-60-B-XX-XX	35	10.7	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1-1/4" x 42" x 6"	5.0	554
SSS-S-40-60-B-XX-XX	40	12.2	6" square	.188"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1-1/4" x 42" x 6"	5.0	629
SSS-S-30-60-C-XX-XX	30	9.1	6" square	.25"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1-1/4" x 42" x 6"	5.0	614
SSS-S-35-60-C-XX-XX	35	10.7	6" square	.25"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1-1/4" x 42" x 6"	5.0	712
SSS-S-40-60-C-XX-XX	40	12.2	6" square	.25"	12"	11.00" - 13.25"	7.81" - 9.37"	12.25"	1-1/4" x 42" x 6"	5.0	809

NOTE Factory supplied template must be used when setting anchor bolts. Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

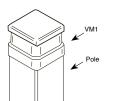


CO5 - CO7 - C20 - COUPLING



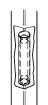
Field Installed Pole Top damper designed to reduce pole top deflection or sway. VM1 is recommended for pole systems 20' and taller with a total EPA of 1.0 or less.

VM1 - VIBRATION DAMPER 1ST MODE

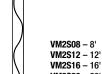


Factory installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.

VM2 - VIBRATION DAMPER 2ND MODE

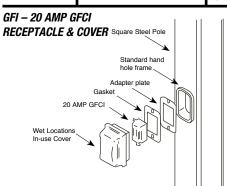


VM2SXX - VIBRATION DAMPER 2ND MODE ↑

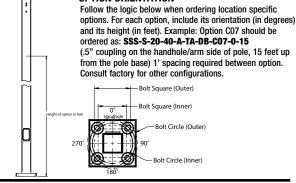


VM2S20 – 20' **VM2S24** – 24'

Field installed, internal damper designed to alter pole resonance to reduce movement and material fatigue caused by 2nd mode vibration.



MPB - MID POLE BRACKET Square Steel Pole Attachment stub 5" long welded to pole 2" pipe tenon 4.25" tall Arm, 3" Sq. x 13.5" long ships separately



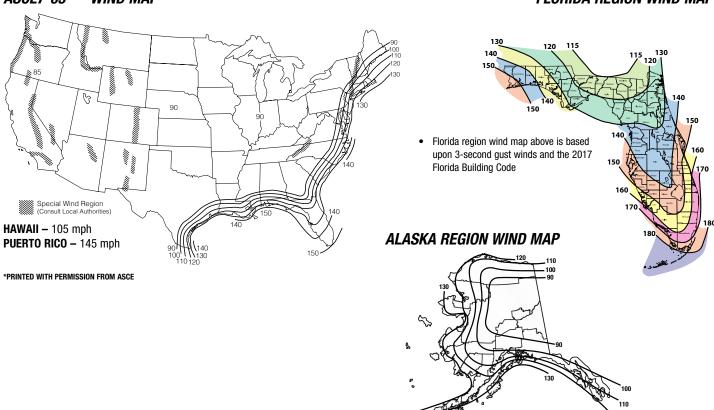
OPTION ORIENTATION

For more information about pole vibration and vibration dampers, please consult http://cdn.spauldinglighting.com/content/products/literature-files/Pole_Wind_Induced_Flyer_HL010022.pdf
Due to our continued efforts to improve our products, product specifications are subject to change without notice.









ASCE 7-05 wind map EPA Load Rating - 3 second gust wind speeds (Use for all locations except Florida)										
Catalog Number	85	90	100	105	110	120	130	140	145	150
SSS-S-10-40-A	25.0	25.0	25.0	22.8	20.6	17.0	14.2	11.9	11.0	10.1
SSS-S-12-40-A	25.0	25.0	20.0	18.0	16.1	13.2	10.8	8.9	8.1	7.4
SSS-S-14-40-A	23.1	20.4	16.1	14.3	12.8	10.2	8.2	6.6	5.9	5.3
SSS-S-16-40-A	19.0	16.7	13.0	11.5	10.1	7.9	6.2	4.7	4.1	3.6
SSS-S-18-40-A	15.6	13.6	10.0	9.0	7.8	5.9	4.4	3.1	2.6	2.1
SSS-S-20-40-A	12.7	10.9	7.9	6.9	5.9	4.2	2.8	1.7	1.3	0.9
SSS-S-25-40-A	7.3	5.9	3.8	2.9	2.1	0.8	NR	NR	NR	NR
SSS-S-14-40-B	25.0	25.0	23.3	20.8	18.6	15.1	12.3	10.2	9.2	8.4
SSS-S-16-40-B	25.0	24.9	19.4	17.3	15.4	12.3	9.9	8.0	7.2	6.4
SSS-S-18-40-B	24.0	20.8	16.1	14.2	12.5	9.8	7.7	6.1	5.3	4.7
SSS-S-20-40-B	20.2	17.5	13.2	11.6	10.1	7.7	5.9	4.4	3.8	3.2
SSS-S-25-40-B	12.8	11.0	7.9	6.7	5.5	3.7	2.3	1.2	0.7	NR
SSS-S-30-40-B	8.0	6.6	4.1	3.1	2.2	0.8	NR	NR	NR	NR
SSS-S-16-50-B	25.0	25.0	25.0	25.0	24.8	20.1	16.5	13.6	12.3	11.2
SSS-S-18-50-B	25.0	25.0	25.0	22.9	20.4	16.4	13.2	10.7	9.6	8.6
SSS-S-20-50-B	25.0	25.0	21.3	18.9	16.7	13.2	10.4	8.1	7.2	6.3
SSS-S-25-50-B	20.7	17.8	13.3	11.5	9.8	7.2	5.0	3.3	2.6	1.9
SSS-S-30-50-B	13.5	11.3	7.7	6.2	4.9	2.8	1.1	NR	NR	NR
SSS-S-25-50-C	25.0	25.0	19.4	17.1	15.1	11.7	9.0	6.9	6.0	5.1
SSS-S-30-50-C	20.1	17.3	12.7	10.9	9.3	6.6	4.5	2.8	2.1	1.4
SSS-S-20-60-B	25.0	25.0	25.0	25.0	25.0	20.2	16.1	12.9	11.5	10.3
SSS-S-25-60-B	25.0	25.0	20.6	18.0	15.6	11.8	8.7	6.2	5.2	4.2
SSS-S-30-60-B	21.4	18.1	12.9	10.7	8.8	5.7	3.3	1.3	NR	NR
SSS-S-35-60-B	14.0	11.3	6.9	5.2	3.6	1.0	NR	NR	NR	NR
SSS-S-40-60-B	8.1	5.8	2.2	nr						
SSS-S-30-60-C	24.3	20.5	14.6	12.2	10.2	6.8	4.2	2.2	1.3	0.5
SSS-S-35-60-C	16.6	13.5	8.6	6.6	4.9	2.1	NR	NR	NR	NR
SSS-S-40-60-C	10.6	7.9	3.7	2.1	0.6	NR	NR	NR	NR	NR

Florida Building Code 2017 EPA Load Rating - 3 second gust wind speeds (Use for Florida only)											
Catalog Number	115	120	130	140	150	160	170	180			
SSS-S-10-40-A	25.0	25.0	25.0	25.0	21.4	18.4	15.9	13.9			
SSS-S-12-40-A	25.0	25.0	23.6	19.8	16.7	14.2	12.1	10.4			
SSS-S-14-40-A	25.0	23.1	19.0	15.7	13.1	10.9	99.1	7.6			
SSS-S-16-40-A	20.8	18.7	15.2	12.3	10.1	8.2	6.7	5.4			
SSS-S-18-40-A	16.8	15.0	11.9	9.4	7.5	5.9	4.5	3.4			
SSS-S-20-40-A	13.6	11.9	9.2	7.1	5.3	3.9	2.7	1.7			
SSS-S-25-40-A	7.4	6.2	4.1	2.5	1.1	NR	NR	NR			
SSS-S-14-40-B	25.0	23.6	19.4	16.1	13.4	11.2	9.4	7.8			
SSS-S-16-40-B	21.4	19.2	15.6	12.7	10.4	8.5	6.9	5.6			
SSS-S-18-40-B	17.2	15.4	12.2	9.7	7.7	6.1	4.7	3.6			
SSS-S-20-40-B	13.9	12.3	9.5	7.3	5.5	4.1	2.9	1.9			
SSS-S-25-40-B	7.7	6.4	4.3	2.6	1.3	NR	NR	NR			
SSS-S-30-40-B	3.2	2.1	NR	NR	NR	NR	NR	NR			
SSS-S-16-50-B	25.0	25.0	25.0	25.0	25.0	21.4	18.2	15.5			
SSS-S-18-50-B	25.0	25.0	25.0	24.4	20.4	17.0	14.2	11.9			
SSS-S-20-50-B	25.0	25.0	24.4	19.9	1 6.3	13.4	11.0	8.9			
SSS-S-25-50-B	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1			
SSS-S-30-50-B	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR			
SSS-S-25-50-C	21.8	19.3	15.0	11.5	8.8	6.5	4.7	3.1			
SSS-S-30-50-C	13.7	11.7	8.2	5.5	3.3	1.5	NR	NR			
SSS-S-20-60-B	25.0	25.0	25.0	21.9	17.8	14.5	11.7	9.4			
SSS-S-25-60-B	23.8	20.9	16.1	12.3	9.2	6.6	4.5	2.8			
SSS-S-30-60-B	14.6	12.3	8.4	5.3	2.8	0.8	NR	NR			
SSS-S-35-60-B	7.5	5.6	2.4	NR	NR	NR	NR	NR			
SSS-S-40-60-B	1.8	NR	NR	NR	NR	NR	NR	NR			
SSS-S-30-60-C	14.6	12.3	8.4	5.3	2.8	0.8	NR	NR			
SSS-S-35-60-C	7.5	5.6	2.4	NR	NR	NR	NR	NR			
SSS-S-40-60-C	1.8	NR	NR	NR	NR	NR	NR	NR			





NOTES

Wind-speed Website disclaimer:

Hubbell Lighting has no connection to the linked website and makes no representations as to its accuracy. While the information presented on this third-party website provides a useful starting point for analyzing wind conditions, Hubbell Lighting has not verified any of the information on this third party website and assumes no responsibility or liability for its accuracy. The material presented in the windspeed website should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. Hubbell Lighting Inc. does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the windspeed report provided by this website. Users of the information from this third party website assume all liability arising from such use. Use of the output of these referenced websites do not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site described by latitude/longitude location in the windspeed report. http://windspeed.atcouncil.org

- · Allowable EPA, to determine max pole loading weight, multiply allowable EPA by 30 lbs.
- The tables for allowable pole EPA are based on the ASCE 7-05 Wind Map or the Florida Region Wind Map for the 2010 Florida Building Code. The Wind Maps are intended only as a general guide and cannot be used in conjunction with other maps. Always consult local authorities to determine maximum wind velocities, gusting and unique wind conditions for each specific application
- Allowable pole EPA for jobsite wind conditions must be equal to or greater than the total EPA for fixtures, arms, and accessories to be assembled to the pole. Responsibility lies with the specifier for correct pole selection. Installation of poles without luminaires or attachment of any unauthorized accessories to poles is discouraged and shall void the manufacturer's warranty
- Wind speeds and listed EPAs are for ground mounted installations. Poles mounted on structures (such as bridges and buildings) must consider vibration and coefficient of height factors beyond this general guide: Consult local and federal standards
- Wind Induced Vibration brought on by steady, unidirectional winds and other unpredictable aerodynamic forces are not included in wind velocity ratings. Consult Hubbell Lighting's Pole Vibration Application Guide for environmental risk factors and design considerations. http://cdn.spauldinglighting.com/content/products/literature/literature_files/Pole_Wind_Induced_Fiyer_HL0I0022.pdf
- Extreme Wind Events like, Hurricanes, Typhoons, Cyclones, or Tornadoes may expose poles to flying debris, wind shear or other detrimental effects not included in wind velocity ratings

Due to our continued efforts to improve our products, product specifications are subject to change without notice.



